

THE IMPORTANCE OF FREDERICK KESLER TO THE
EARLY ECONOMIC HISTORY OF UTAH
1851 - 1865

by
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ABSTRACT

Frederick Kesler, a Mormon pioneer, was one man amidst a collective effort towards group solidarity and viability in the Great Basin. He was a self-reliant craftsman--somewhat an industrialist, inventor, architect, engineer--a man whose skill and strength would carry him into almost every phase--economic, secular, and religious--of this pioneering community.

On January 20, 1816, Frederick Kesler was born to Frederick and Mary Sarah Lindsay Kesler in Crawford County, Pennsylvania. Shortly thereafter, his mother died during the delivery of her sixth child. Kesler's father, a trapper, distributed his children amongst families around the area. Father Kesler then returned to the untamed country never to be heard from again.

Frederick Kesler, from six until fifteen, resided with Edward Campbell in Mercer County, Pennsylvania. At fifteen, desirous of learning a trade, he apprenticed himself to Abram Clark, a millbuilder in Trumbull County, Ohio. Here he remained for five years acquiring skills necessary to construct and operate saw and grist mills.

Upon the completion of his training, he accompanied Levi Moffet to Iowa, where he practiced his trade. The flour mill that he constructed in Iowa within the Black Hawk purchase, was the first one built in Iowa.

In 1839, Kesler first heard of the Mormons. Shortly after becoming acquainted with Joseph Smith, he and his first wife Emeline Parker, were baptised into the Mormon Church. Before his trek westward to the Salt Lake Valley, Kesler constructed a ferry boat to aid the Saints in crossing the Missouri River to Winter Quarters, built or repaired mills in Nebraska, Illinois, Missouri, Mississippi, Texas, and Kansas.

Upon his arrival into the Valley, Brigham Young requested Kesler to superintend and construct mills around the Territory. In the ensuing fifteen years, Kesler provided the means by which many young settlements developed into or maintained industrialism by providing the initial means for satisfying the basic timber and flour needs within a community or by relieving overburdened or outdated milling facilities. Kesler's talents, however, were not just centered upon these vital sources of energy and existence, but with such major enterprises within the Utah Territory as sugar, textiles, iron, and paper which signified the emergence from a preindustrial past into an industrial future. In 1865, his remarkable activities came to a sudden halt by an accident which left him with a broken leg and hip that never rejoined properly.

Kesler was always very faithful to his church. He served several economic missions to the eastern states to purchase machinery and other manufacturing supplies for the community. From 1856 until his death in 1899, he was the Bishop of the L. D. S. Sixteenth Ward.

Other activities include: Major 2nd Battalion, 2nd Regiment, Mormon Legion; director of the Utah Penitentiary for 16 years and

then elected warden of the same; Justice of the Peace, 8 years; and district school trustee for many years.

Kesler was also a polygamist, taking three wives and fathering thirty children. Two of his wives divorced him in the 1870's, both sanctioned by Brigham Young and both receiving property settlements.

Frederick Kesler died in Salt Lake City, Utah, June 12, 1899, at the age of 83.



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INTRODUCTION

The early economic history of the Utah Territory reflected the Mormon emphasis of self sufficiency. Motivated by a common philosophy and set of loyalties, the settlers stressed a planned and balanced economic development based on agriculture. Frederick Kesler contributed to the success of this endeavor, as did many others. As a result of their coordinated efforts, a degree of economic viability and independence was realized.

Indeed, Mormon leaders uncompromisingly held to self sufficiency as the official policy of the church. They did not expect absolute economic independence, of course, but they desired a sufficient degree of independence to prevent closer ties with the outside world from producing changes in the essential economic character of their community. Nevertheless, Salt Lake City did become an entrepot of the Mountain West in spite of the Mormon resistance. The location, the abundance of skilled and professional labor, the supply of raw materials and consumer goods, and, above all, the inevitability of an integration into the nation's economy all contributed to that end.

As a boy of fifteen, Frederick Kesler was apprenticed to Abram Clark, a master millwright and builder in Western Pennsylvania. Upon the completion of his apprenticeship, at age nineteen, Mr. Kesler began his own career as a master millwright, his principal occupation until 1865 when a serious accident curtailed this work. Prior to his

arrival in Utah on October 1, 1851, his mill construction was in the midwestern and southern states.

Soon after Frederick's arrival in Salt Lake City, he was commissioned by Brigham Young to superintend and construct mills for the Territory. This skill and inventiveness carried him into phases of industrial development essential to the establishment of this pioneering community. His talents in building mills and machinery and operating them are attested to by the variety and number he built in the first fourteen years of his residence. They include not only the usual flour and sawmills but also oil mills, foundries, a nail factory, sugar and molasses factories, carding and weaving mills, a paper mill, blacksmith shops, grain cleaning machines, a button factory, and others.

From his personal papers located at the University of Utah Library, it is evident that he was an ingenious designer of pioneering industrial plants. Many he built himself, and others he superintended the construction or provided the designs for others to build. He designed or constructed churches, schools, bridges, canals, private homes and shops. As an active Mormon church leader, and polygamist, he also contributed to the ideological foundation of that American pioneer sector that settled the Great Salt Lake Valley.

BRIEF BIOGRAPHY

On January 20, 1816, Frederick Kesler, Jr. was born to Frederick and Mary Sarah Lindsey Kesler in Crawford County, Pennsylvania. His father, of German descent, was a member of the advance guard of American civilization--a trapper. Indicative of his fascination with the pursuit of pelts, Frederick Kesler, Sr. located his family in successive log cabins isolated amidst the primitive forests, lakes, and rivers of northwestern Pennsylvania. Once wedded to the wilds, Kesler, Sr. became loath to return to the restrictions of life in general, which became necessary with the untimely death of Mary Sarah upon the birth of their sixth child. Father Frederick, consequently soon found homes for his three boys and three girls ". . . amongst strangers far apart from each oather except two which were cared for by the same Family."¹ The strong, hardy, and adventuresome man then returned to the untamed country never to be heard from again. Son Frederick later wrote, "We grew up amongst strangers and to a great exstent became strangers to each oather and as we grew up scattering over the cuntry and thus becoming lost to each oather."²

Now at the age of six, son Frederick resided with Edward Campbell, a farmer in Mercer County, Pennsylvania ". . . whose family ware well nigh grown to man and womanhood."³ At fifteen, desirous of learning a trade, he apprenticed himself to Abram Clark, a miller in Trumball County, Ohio. During the next five years of his life, young Kesler

diligently acquired the skills necessary to ". . . construct and build good mills of eather Saw or Flouring Mills."⁴

Soon upon the completion of his training, Kesler was asked to accompany Levi Moffet and his family to construct mills in the "far west." Moffet had already built a flat boat and with eight other families, they moved towards the ". . . eldorado of the west."⁵

All being ready we left orangeville situated on a tributary of the Shenango river on the state line betwene Ohio and Pennsylvania in the early Spring of 1835 we glided down the Shenango river emptying into the Ohio River 28 miles below the City of Pittsburgh we had a verry pleasant voyage down the Ohio to the mouth of the cumberland Reiv. here we changed Boats . . . we next landed at a point which was afterwards cald Warsaw in Ill Here we commenced exsploring the cuntry on Boath sides of the Great Father of Waters the Mississippi River. we finely located on the west side of the Mississippi on what was then known as the Black Hawk perchase on a Butiful Stream of 100 yards wide cald Skunk River.⁶

Shortly thereafter, young Kesler and Moffet constructed a saw and a flour mill. The flour mill was the first built in what became Iowa.⁷

In the spring of 1836, Frederick married his first wife, Emeline Parker, and ". . . at once commenced Keeping House in a little log cabin 10 X 12 feet square situated within a few rods from the North bank of the Skunk river."⁸ Within a few weeks, the young couple became violently ill with an unknown fever which was rampant in the community. John Haynes, a neighbor on the opposite side of the river and whose wife was also very ill, transported the Keslers to his two cabin home where he and two doctors cared for all of them. By late Fall, Emeline, only partially recovered, returned home with Frederick to care for him. His recovery was not until the following Spring at which time, and upon her request, he returned his still feeble Emeline

to convalesce at her mother's in eastern Ohio. Young Kesler then returned to Iowa where he sold most of their belongings and worked to pay the accumulated debts of ". . . several hundred dollars."⁹

Although Emeline had fully recuperated by the Fall of 1837, the hazards of transportation forced her to remain with her mother until the following Spring. Apprised of this, Frederick ventured south on December 4, 1837, near the vicinity of Vicksburg, Mississippi where he constructed a large double saw mill. He then traveled ". . . 80 miles back in the cuntry [and] put in operation a corn Mill cotton jin & cotton press for a wealthy widow who had a large number of slaves."¹⁰

Frederick and Emeline were reunited in Iowa on May 5, 1838. As Kesler had disposed of most of what they had owned to pay the creditors, they now began anew by purchasing a ". . . few nesisaries."¹¹ As their situation showed signs of amelioration, unfortunately their savings of ". . . severial Hundred dollars was sudently lost by the suspending of a Mississippi Bank . . . we simply had ourselves & my chest of tools and my trade to commence a new in the world."¹² Fortunately, Kesler was very competent in an important and necessary trade, and again improvement was imminent. Throughout his life, however, he would possess an uncanny ability to fall prey to adverse situations and illnesses.

During the Summer of 1839, Kesler first became aware of the Latter-day Saints. "This strange people as I thought they must be ware located in a place cald commerce, a place 20 miles distant from whare I lived."¹³ Intrigued, he soon journeyed to this community and

introduced himself to Joseph Smith and other leading men of the community. "I was Greatly suprised in finding them a verry intelegant people & that they believed in & taught the same Doctorn & principles That was taught by Christ & His apostles & that all thare doctrons was founded on the Bible."¹⁴ Overwhelmed and inspired, the Keslers were baptised into the Latter-day Saints church in June, 1840, by immersion in the Mississippi River at Nauvoo, Illinois, by Elder Freeman Nickelson and confirmed by the same.¹⁵ Soon after, Kesler was ordained a Teacher in the Augusta Branch of this church in Iowa where they had resided since 1835. He continued to make frequent visits to Nauvoo and became ". . . quite intimate with the Propet [Joseph Smith] as well as with His aged Father Mother Brothers & Sisters."¹⁶ At the April Conference held in Nauvoo in 1842, Kesler was ordained an Elder and by the following September, ventured east on his first Mormon Mission ". . . sent out with out purce or Scrip."¹⁷

Two years later, after his return to Iowa, Elder Kesler was called to Nauvoo with thirty other brethren to protect Joseph Smith from mob violence.

On landing from the steamer in Nauvoo we ware met & excorted by a Band of Music to the Head Quarters of the Nauvoo Leagon after congratulations we ware asinged to quarters whare we ware made as comfortable as posable the last time I seen our Great Leader & Prophet He past by our quarters he was on his favourite Black Horse Jo--& was Drest in his military costume as he past he Bowd & said God bless you my Breathe.¹⁸

Soon after Joseph Smith was incarcerated in the Carthage Jail and the Legion was disbanded. Upon his return to Iowa, Kesler realized that Illinois was not the only location exhibiting hostility towards the

Saints. The Keslers escaped, soon after the martyrdom of Joseph and Hyrum Smith, by transferring themselves and several families in their Branch to Nauvoo. There, all accelerated the completion of the Temple and by the winter of 1845, Frederick and Emeline received their endowments.¹⁹

The months to follow were filled with hostility, accusations, and recriminations between the Mormons and their neighbors and the total expulsion from Nauvoo became imminent. Already laboring at a remarkable pace, the Mormon people redoubled efforts to evacuate their city. Nauvoo was soon up for sale and speculators descended from far and wide. Almost everything the Mormons had was sacrificed for hard cash.

I sacrificed several Thousand dollars worth of Property in this terrible crusade out of which I was only able to raise a meagre bit out for to go on a long unknown journey. to wit one old wagon 3 inferior yok of oxen one cow one old mare with about 6 or 8 months provisions & a scanty supply of clothing I had not the amount of ten Dollars in cash.²⁰

The Keslers, in spite of their provisions, were stalwart in their faith and crossed the Mississippi River at Nauvoo on the 16th of April, 1846. By May 26, they had met the main companies at Mount Pisgah, Iowa. Here they joined Brigham Young's Company, and continued the exodus to Council Bluffs, arriving there a week later, June 11, 1846.

On June 13, Brigham Young called upon Frederick Kesler to superintend and help construct a ferry boat on which the Saints would cross the Missouri River to Winter Quarters. By the evening of the 29th, with help, the boat was completed and the ferrying commenced.

I kept at work day and night, ferrying the hosts of Israel with their wagons and all their belongings to a place of safety. We ferried hundreds of wagons across, and at last I had to rest; I was completely tired out. I had worked for weeks, day and night, without money and without price.²¹

In the midst of this confusion, an agent from the United States Government arrived and requested the enlistment of 500 Mormon men into the Mexican War, the resolution of which would bring the Mormon sanctuary within the Great Basin under the domain of the United States.

. . . alas is it a dream that our Great Government cald on a few poor exiles to furnish 500 able Bodied men to leave thare wifes & children with out food in a wilderness surrounded By wild indians to go & fight thare Battles in Mexico while at the same time they ware calmly looking on seeing a Blood thirsty mob composed of several thousand men (or Demons in Human shape) driving at the point of the Bayonet our aged poor & sick across the Mississippi River from thare Homes in Nauvoo. But alas its only to true . . . it was a Grand reality.²²

Fortunately, because of his beliefs concerning this matter, Frederick Kesler was counseled not to enlist but to remain at Winter Quarters. There he built a flour mill in early 1847, for the accommodation of the people to grind their corn, as very few had anything else for food.²³

In the Spring of 1847, several families, including the Keslers, journeyed down the Missouri River seeking employment, as they lacked many of the necessary provisions to make the trek west. The Keslers left Winter Quarters May 1, 1847, and traveled to Kansas City, where the first opportunity for employment was found. There he constructed a small horse powered mill which could grind both wheat and corn. Completing this in October and finding nothing further presenting itself, the Keslers packed their belongings and ventured further

south. Texas offered the next job opportunity and there he built and installed a water wheel in a flouring mill. The following Spring, 1849, the Keslers returned to Kansas City. "I procured work at my trade but was again frustrated in my buisiness By the Braking out of the Cholera which proved verry fatle."²⁴ While in Kansas City, he also obtained a government contract to construct a flour mill for the Pottowatomi Indians 100 miles west of the city.

I mooved my family to the place whare the mill was to be Built situated on a Butiful Stream of Good water Here I built a camp of slabs & went imediateley to work with a number of men some gitting timbers for the mill & dam & et. the mill was a Frame Building two stories High . . . I also Built a Frame House for the miller to live in this was also the First Flouring mill Built in what is now Known as the State of Kansas.²⁵

In the early Spring of 1851, the Keslers left Kansas City with three wagons, six yoke of oxen, one span of pony horses, one cow, and the necessary provisions and traveled back to Winter Quarters, recently renamed Florence. They soon joined Orson Pratt's Company bound for the Salt Lake Valley. The collective dream, shared by the Keslers and most Mormons, of a home isolated from external forces, safely tucked within the Great Basin, became a reality upon the end of a long, tedious, and treacherous journey, on October 1, 1851.

After a cursory examination of the valley, Kesler believed Box Elder would be a desirable place to locate his family and build his mill.²⁶ Before any decisive action, however, he discussed his plans with Brigham Young.

He listened with much atention unto my plans & remarked that I could no doubt acomplish & be succesful in the enterprise & would be able to make myself & family

comfortable if not wealthy & then said if it met my mind He wished me to Superintend mill Building for Himself & that the Church would Have considerable of work in my line which He wished me to look after as well & that my servises would be more benifit to the church than for me to go off & build for myself & that I should be more abundantly Blest by so duing.²⁷

Therefore, he established a home in Salt Lake City within the Sixteenth Ward, and Kesler began his activities as an appointed overseer of Zion.

The first work he accomplished was to place the water-power machinery on the northeast corner of the Temple Block for the Public Works Department.²⁸ This represented the beginning of the utilization of a skill and inventiveness that would involve Kesler in many and varied enterprises considered essential to the desired economic independence of this pioneering community.

Dedicated, as he was, to the L. D. S. kingdom, Frederick Kesler also became actively involved with many of the events, practices, and institutions which surrounded him. Within the first five years of his residence in the Great Basin, Kesler became a polygamist marrying Jane Elizabeth Pratt in 1853, and Abigail Snow in 1857. He also served on an economic mission to the eastern states, 1854; purchased a large farm/ranch west of Salt Lake City, and was ordained Bishop of the Sixteenth Ward, 1857.²⁹ In addition, in 1854, he became a member of the Big Cottonwood Canyon Lumber Company. This company included such individuals as Brigham Young, President of the L. D. S. Church; Daniel H. Wells, Superintendent of the Public Works Department; Abraham O. Smoot, later Mayor of Salt Lake City; John Sharp, assistant

to the Superintendent of Public Works; and Feramor Little, emigration and purchasing agent for the church, and who would superintend the construction of the road up the canyon.³⁰ The purpose behind this company was to evaluate the timber resources in the Big Cottonwood Canyon district to see if the amount and availability justified the expense of conveyance from the canyons.

We were conveyed by team as far as team could travel up Mill Creek canyon. From there we travelled on foot, carrying our blankets and provisions until we reached the top of the divide, where we made our first camp, and we were so weary that we were very glad to lie down to rest . . . we thoroughly explored the district of Big Cottonwood, climbing over the most rugged, rocky, and rough places I have ever traveled over. We found nothing to dispute our progress except some colonies of rattlesnakes, which were plentiful and some of them very large . . . Five of our company went on this exploring tour, President Young remained at home.³¹

Apparently the ends justified the means, for the company soon began the construction of the first of several sawmills up Big Cottonwood Canyon. The lumber from these mills supplied, among other interests, the entire Public Works program which promoted a systematic industrial development around the valley.³²

We also had a great amount of lumber stacked up and no apparent use for it, or market where we could sell. It was not long, however, before the superior judgment and matchless wisdom of this mighty leader and undoubted servant of God [Brigham Young] were displayed before all Israel, we were very poor, no money, very little clothing or merchandise. The people were very destitute. At this time General Johnston with the U. S. army was sent against us.³³

Three great ventures in Utah History now emerged in rapid succession: The Brigham Young Express and Carrying Company, the Utah War, and the "Move South." Involving, as these three ventures did,

large sections of the territorial population, it was not surprising that the talents of Kesler would also be utilized.

The Express and Carrying Company was designed to facilitate the movement of the immigrant companies, mail, freight, and passengers from the Missouri Valley to Salt Lake City. This would be accomplished by the establishment of way stations and an overland coach transportation system. Kesler's involvement with this enterprise concerned the construction of milling facilities at the Deer Creek and La Bonte stations. Just as the construction of the stations were nearing completion and the requisite number of stations realized, the mail contract with the United States was cancelled and an army was sent against the Mormon outpost. With the realization that the company couldn't operate, Brigham Young ordered all stations between Salt Lake City and Fort Laramie closed and instructed the Saints to return to the city.³⁴ The subsequent Utah War and the "Move South," however, would touch upon Kesler's talents and leadership abilities more thoroughly.

In 1857, with the approach of twenty-five hundred American troops to the Utah Territory, the Utah War commenced. The events and influences that instigated this confrontation are difficult to establish. On the front stage, however, was friction stemming from a series of bitter charges and countercharges among Mormons, non-Mormons, and appointed political officials as evidenced by a series of newspaper articles, pamphlets, novels, and public speeches. These officials, persuaded President Buchanan that the Mormons were in a state of open rebellion. Within this climate of public opinion, Buchanan and his

cabinet members became convinced that the rights of non-Mormons within the territory should be protected, Mormon home-rule should be suppressed, and polygamy should be eradicated. The quickest solution was a show of military force.³⁵

News of the approach of the army under General W. S. Harney and later Colonel Albert S. Johnston naturally caused consternation among the Mormons. Determined to defend their homes, these invaders were to be met with force if necessary. To avoid bloodshed, the Mormons pursued harassment policies that would hopefully leave the invaders with a precarious line of supply. Another action was to ask each community to donate men, firearms, and provisions for the territorial militia which would defend Zion.

Besides pursuing the collection of donations from the Sixteenth Ward for the Nauvoo Legion, Frederick was enlisted into the war directly. As he had been a major in the Legion at Nauvoo, he now took command of the Second Battalion Second Regiment. With the alarming news on November 8, 1857, that Colonel Albert Sidney Johnston would likely push to the Salt Lake Valley before winter set in, Major Kesler and his Battalion were sent to join the Eastern Expedition in the natural fortress of Echo Canyon. However, the harsh winter, the lack of supplies, and the delay of troops caused by the weather and the Mormon raids upon the army, forced the Utah Expedition to camp near the charred Fort Bridger, previously burned by the Mormons. When Johnston's decision became evident to the Mormons, November 29, 1857, most of the Legion was withdrawn from Echo Canyon except a guard of

fifty men. Major Kesler, not a member of this guard, returned to Salt Lake City on December 3, 1857.³⁶

The government, however, was not intimidated and worked sedulously to maintain interest in the Utah campaign. This was done quite successfully, for soon the Utah Expedition was strengthened by an additional 3,018 officers and men with the needed supplies.³⁷

While these preparations were made, the Mormons responded by strengthening their own defensive force, and, at the same time, attempted a peaceful settlement. The method of finance of this force was to ask men of means, wards, and settlements to outfit one or more of Zion's guards. Bishop Kesler responded to this call by volunteering the Sixteenth ward to a list of men and thus solicited donations from the same. These donations he recorded in a book by name.

Another defensive scheme included the establishment of an L. D. S. Church Bank which would help finance the resistance. This it would do by providing for the Saints banking services and a circulation medium, redeemable in livestock.³⁸ In a mass meeting on January 19, 1858, Kesler witnessed Brigham Young's proposal of the establishment of the Deseret Currency Association. With great unanimity of Mormon spirit, the currency association was incorporated. After this meeting, the plan was discussed in the various wards and settlements. On the 22 of January, Bishop Kesler ". . . Held a mass meeting in the School House in the evening full House I spoke of the Bank & of the advantage of our Being more united in our Domestick affairs."³⁹ At this meeting Kesler also asked the members, as all Bishops were doing in their wards, to affix their names to a list to

sustain the currency, and on February 1, the Sixteenth Ward's list was given to Brigham Young.

During February-March, a compromise was being concluded between Brigham Young and President James Buchanan through Thomas L. Kane. These efforts resulted in a proclamation issued by President Buchanan which granted amnesty to the Mormon rebels, Alfred Cumming would remain as the appointed Governor of Utah, the United States army would occupy the territory, and an investigating committee would be appointed.⁴⁰

This solution was not a satisfactory one for either the Mormons or the avenging army. Brigham Young and his associates, however, acted upon their discontent and launched upon a project which would hopefully turn the tide of opinion in their favor. Indeed, it would be a scheme that would present a picture of a persecuted and misunderstood people who were once again being harassed by a hostile government.⁴¹ In a meeting in the Historian's Office on March 18, Brigham Young announced his plan to "Move South" to the members of the ". . . 1st Presidency, the twelve and many Officers of the Legion."⁴² The Brethren were informed the following Sunday, March 21, 1858, in the Tabernacle.

Brigham Young Spoke on the propriety of us leaving this city Forthwith & fleeing to the Desert for Safety He Said that He wanted 500 families to leave this City as Speedily as posable He Desired that all the families Be out of this City within 3 months from this time . . . it was the Biggest Day I evr Seen.⁴³

Obviously, this was a plan Brigham Young was to pursue whether or not anyone agreed with him.

Kesler, the very next day, eagerly selected thirty-nine families from his ward to be amongst the first to move. Then, on March 27, because of instructions given to him by Daniel H. Wells, he began the preparations for most of his already considerable family to move to Provo on April 6, 1858. He, however, would make several trips back and forth. His first venture to Provo, on April 7, was to contract with "Shadrack Holdeway" (sic) to house Brigham Young's carding machine. He returned to Provo again on May 16th to attend a meeting where he learned that he should dismantle the flour mill in Box Elder that he had constructed in 1857, and move it to Provo. This mission he embarked upon immediately, and returned to Provo with the machinery on June 4th. On that day, he and Brigham Young selected a site for the Provo Flour Mill. Delegating his foremen, Samuel Ensign and "Pharious Wells" (sic), to begin the ground work, Kesler returned to Salt Lake City, on the 19th of June, to draft a design for the mill and to continue boarding-up his home. On the 24th, he again ventured to Provo to talk to Brigham Young "on business," and returned to Salt Lake City in time to witness Johnston's Army pass through the silent city. Again on June 30, Frederick was in Provo where he learned that Brigham Young had announced that all who wished could return to their homes in Salt Lake City. This announcement resulted from a conference with Governor Cumming where Brigham Young heard of the free and full pardon of the Mormons by President Buchanan.⁴⁴ So Kesler accordingly, assembled his family and belongings and all marched back home. This, however, did not conclude his trips to Provo. On July 3, he was on his way again to check on the mill. On July 7th, he had returned

from Provo but was sent back on the 10th with further instructions from President Young. Soon after his arrival in Salt Lake City on the 16th of July, Brigham Young informed this seasoned traveler to dismantle the mill at Provo and replace it in Box Elder. So, once more he returned to Provo, this time with John Sharp, to retrieve the equipment. In his diary on Sunday, July 18, 1858, his only comment was ". . . my ox team Has traveld During our moove south and back over 900 miles the past moove Has cost me at least one thousand dollars."⁴⁵

With the members of the Utah Expedition entrenched at Camp Floyd, Brigham Young found his kingdom faced with an implied threat to the Saints of Zion--anti-Mormonism perched practically on the city's doorstep. This cynical influence did exist, but along with it came the increased trade and employment which gradually improved Utah's depressed economic condition. Official contracts to supply grain and lumber, and sales of army surplus netted great gains to the territory, church, and to the Big Cottonwood Canyon Lumber Company.⁴⁶ This company quickly rid itself of its surplus by supplying the needed timber for the construction of Camp Floyd. The army literally paid ". . . thousands of dollars in gold for it."⁴⁷

On September 14, 1858, Frederick Kesler and Horace S. Eldredge were sent on an economic mission to the East with the money the lumber company had accrued to purchase the appropriate machinery for economic growth. These two had been sent with similar objectives in 1854. Mr. Eldredge, at that time, had been a purchasing agent for the L. D. S. Church in St. Louis.⁴⁸

Brother Eldredge was to purchase mercantile goods, while I was to select and purchase machinery for manufacturing purposes.⁴⁹

Included amongst his purchase of mill machinery was the necessary equipment for the manufacture of nails, buttons, and paper, and wool and cotton carding machines and looms.

While on his mission, Kesler wrote three letters to President Buchanan along with frequent notes to his family at home. In his correspondence to the United States President, he related to him the brief history of the Mormons, particularly their persecutions and abuses that had been unjustly heaped upon them by the United States. Another activity in which he took great interest, was the collection of various seeds to plant in his gardens. Frederick, because of his ever recurring poor health, returned to Utah on September 1, 1859, ahead of Eldredge and the Church Train carrying the purchases.⁵⁰

Soon after his arrival home problems within his family erupted. On September 15th he wrote, ". . . my Oldest and Favorite Child Has turned away from the truth and married a Jintile & Has Came out & Said to my face in my own House that She was fulley Determind to go Her own way."⁵¹ Then, added to that unpleasantness, on Sunday, September 18th, he returned home to find that his ". . . 2nd Daughter Antynett Had left my house and gone to Maryetts Her Sister thus testifying By her works that she Loves the Sosiety of the Jentiles in prefferance to the Saints which Fact She Has Confest to me."⁵²

Kester later opined,

2 of my Daughters Have been led away by the eavil influence of the Jentiles it makes me feel like Girding on my armour

and going forth and laying waste these poor miserable Curses that Have Run the Cause of leading astray 2 of my Daughters who was onst Kind & obedient & Gave Heed unto my Council But alas they Have been over taken in an eavil hour. I Pray God that Justice may Speedily over take those that Have thus Caused this trouble that they may be wasted From off the earth & that my Daughters may Speedily See the erer of thare ways & Return unto thare Fathers House whare they may Receive a Hearty welcome From a Father & a Moather who wishes them well.⁵³

Frederick Kesler could not, obviously, comprehend the apostacy of his two daughters, and never lost faith that they would eventually repent and mend their sinful ways.

During the next five years until 1865, when an unfortunate accident occurred, Kesler actively pursued his duties supervising the construction and repair of several mills and factories around the valley. These years represented a period of great productivity involving his talents in the construction of canals, a school house for his ward, a smoke house for the army, a new ranch house, a bowery, along with his many duties and responsibilities as a bishop. Added to this, on the 13th of February, 1860, he received his commission from the Utah Legislature to serve as a member of the Board of Directors of the Utah Penitentiary.

Amidst all this, Kesler found time for pleasure as well. Besides being very active socially with the members and hierarchy of the Latter-day Saints church and attending the Salt Lake Theater, he found great enjoyment as a horticulturist, cultivating his extensive gardens at his home in Salt Lake City and at his farm.⁵⁴ As a private entrepreneur in the valley, he was also quite successful. With the dissolution of the Big Cottonwood Lumber Company in 1862, Kesler

offered to sell his interest in that company for \$2,607.06. Less than a year later, he and Brigham Young purchased a mill in Big Cottonwood Canyon for \$13,000 and Kesler moved his third wife, Abigail to the mill.

While the United States was engaged in the Civil War amidst rapid urbanization in the North, while the stirrings of a revolution that would industrialize America were emerging, and while optimism and wild speculation were building the enthusiasm for a new manifest destiny, Frederick Kesler struggled to help build the Mormon Kingdom in the Great Basin. He was a part of a group effort for self-sufficiency which, by participating in the arduous and tedious process of conquering the unfavorable conditions which surrounded them, turned many potential disasters into windfalls. On November 14, 1865, most of the remarkable activities of this now 51 year old man, came to an abrupt end. While in his carriage with his daughter Laura, his horse became unmanageable.

As he [the horse] was about to go down a presapice Laura leaped from the carage without injury But on My attention to Leap out the Lines caught my feet throwing me violently on the Hard ground Striking on my Left hip Braking off the arm of the Femor Bone of my thigh near the Socket of my hip it was but the work of a moment & all was over.⁵⁵

By May, 1866, realizing that he had become an invalid, Frederick Kesler resigned from his commission in that "Honerable body," the Nauvoo Legion.

But trust that I may ever be Ready & willing to assist in any way that I may be able to in Concert with my breathern in the furtherance of the great work of the Lord in the Latter Days.

Your Brother in the gosple,
F. Kesler⁵⁶

Although several attempts at surgery were made, Kesler's hip never healed. But his evangelical fever never faltered--it in fact intensified. Though never in question, his religion became an apothecosis and he pursued his obedience and that of others as Bishop and guardian of the Sixteenth Ward.

Soon after the tragic drowning of his and Abigail's three-month-old daughter Vilate at his mill in the canyon, Frederick, on November 5, 1857, sold his half of the mill to Brigham Young for \$8,000. Abigail and her children, then moved to the ranch located 16 miles west of Salt Lake City. A month later, he received his "card" of invitation to join the School of the Prophets.

The School of Prophets along with the Womens Relief Society played an important role in shaping Mormon economic policy. Strong evidence, from both the rules and the actions taken, support the idea that the formulation of the School had a great deal to do with meeting the problems created by the approaching trans-continental railroad.⁵⁷

In accordance with his acceptance into the School of the Prophets, Bishop Kesler and his counselors established in their ward a Relief Society on June 15, 1868; a cooperative mercantile company in Kesler's granary until another building could be constructed on February 22, 1869; and canvassed the ward periodically to have the members reaffirm their commitment to the Kingdom.

Other campaigns considered requisite to success involved wage reductions so that exports from Utah would be on a competitive basis with those of other states, the establishment of interior branch railroads, the establishment of Zion's Cooperative Mercantile

Institution so that imports which were necessary could be handled through a church-owned wholesale trading concern, to raise money for the Perpetual Emigrating Fund, and a pledge to observe the "Word of Wisdom."⁵⁸

Frederick Kesler's commitment included the following:

I left off the use of Tea in the year 1857 I left off the use of coffee tobacco & all kinds of Spiritous Liquers in the year 1868 I left off eating of Swines flesh in the year 1868 & thus far I can truely say that it has bin a benifit to me . . . I have taught the same to my family some of whome observe the same & I trust all of my family will eventually see the necessity of not only observing the word of wisdom . . . but will hearken & obey every word that is spoken by the servants of the Lord that they may live long on the earth & do a great work in asisting in establishing the Kingdon of God on the earth.⁵⁹

Brigham Young ". . . Desolved the School [of Prophets] until further Notice" on August 3, 1872.⁶⁰ Kesler, as might well be imagined, felt very privileged to have attended ". . . both the first and last school held in this city up to Date."⁶¹

The termination of the School of the Prophets marked the dissolution of but one commitment in Kesler's life. In January of 1872, Emeline, Kesler's first wife,

. . . having been rebellious many years intirely disregarding my council in every particular leading Her children to rebellious & apostity . . . on the 26th Day of January filed her affidavit in the 3rd District Court Before Judge B. W. McKeane as Corupt a Judge as ever disgracet Huminty on the Judges Bench in Her affidavit She did Sware to many things that ware intirely False as well as ignoreing the Revelation given to Joseph Smith in relation to plural marage caling it adultery for a man to have & cohabit with oather woman than his first wife alth taken by direct command of the almighty . . . her children Maryette, Joseph, Fredy ware chief actors in this unjust & unlawful preceedings against her best friend on this earth.⁶²

On February 14, 1872, as counceled by Brigham Young, Emeline withdrew her suit against her husband in the Third District Court and, after Frederick paid the \$40 court expenses, they "amicably" settled out of court.

At this time she got a lions share of my property for her & her children, the real-estate which was soon sold amounting to \$4500.00 in gold, besides a good cow and all her household goods besides paying some of her children heavy sums at different times.⁶³

The following March, Abigail, the third wife, was also desirous of a divorce.

Abigail & I had had no particalar dificuilty the greatest trouble seemed to be that she always for many years took sides with my 1st wife & had stil continuid to uphold her in her unrighteous course . . . I trust she may yet see her folly & repent of her eavil thoughts & of the course she has taken . . .⁶⁴

Abigail, however, did not repent and thus stood true to her convictions. In a letter to her husband on March 3, 1873, she further clarified her desires.

I don't think that you and I can live agreeable together. I will not ask for a divorce for the children sake, I will teach them to respect you as their father. I was once young and happy but your abusive tounge has destroyed my happiness and all love for you my children were conceived, born, and nursed milk steeped in sorrow. I feel it is a duty I owe to myself and to them to take this step . . . if you will come to some satisfactory terms pleasant and agreeable the world shall never know or our children either of my past sorrow, if not I have copied this carefully and shall submit it to the president . . .⁶⁵

It seems the agreement was not a satisfactory one for Abigail, for on the 11th of March she procured a divorce from her husband through Brigham Young. For the property settlement, President Young requested Kesler to list all of his holdings, which he did, and it

amounted to ". . . \$12,000.00 all told--cash, real-estate and personal property."⁶⁶ Brigham Young then took it upon himself to divide all this property between Abigail and Jane, Frederick's remaining wife, according to the number of surviving issue. Abigail was allotted \$4,000, Jane \$8,000, and Frederick was left with nothing. Indigent Kesler later wrote in his Last Will and Testament:

I gave Abigail her choice of everything that was left, her share being \$4,000.00 leaving \$8,000.00. I offered her the ranch which was valued at \$6,000.00 giving her time to pay back \$2,000.00. She refused this offer. I had four notes on Thomas F. Taylor, a prominent merchant, for \$1,000.00 each which were drawing $1\frac{1}{2}$ interest per month. I offered her my house and $\frac{1}{2}$ of lot. She accepted the notes for \$4,000.00 rejecting all other offers. I not being counted on either side this left me in the street with out anything except my clothes which were on my back. Being an invalid for life this was a rather poor plight to be in . . . I had one friend left in the person of my wife, Jane Elizabeth Pratt Kesler who took me in and gave me a home. She at once made me her power of attorney according to the laws of the land . . . thus my affairs were once more quieted down.⁶⁷

In 1874, Brigham Young inaugurated the United Order of Enoch with the hopes it would consolidate the interests of the Latter-day Saints. It was his supreme effort to check the disintegrating forces developing within and without this church, forces encouraged by the completion of the transcontinental railroad in 1869, which threatened the economic and political independence of the Mormon Zion and its people. Indeed, it was Young's effort to achieve before his death, a utopia in Utah, through cooperative and communitarian ideals, ideals that he hoped would check the inevitable--the integration of the Utah territory into the national economy.⁶⁸

Frederick Kesler, as might be expected, eagerly accepted the New Order. On May 20, the officers of the Sixteenth Ward's Order were

elected and Kesler assumed his position as its President. Thereafter, President Kesler and his officers prepared a list ". . . ascertaining the occupation & amount of property that each family has who belongs to the United Order in the ward."⁶⁹ It was not too many days later when Kesler stated:

I am sorry to see so mutch opposition manifest towards the United Order as thare is in this city it betokens no good & in consequence of which we may be made to se mutch sorrow & affliction.⁷⁰

So, as was the case with the exception of but a few of the twenty-seven wards in Salt Lake City and suburbs, the Sixteenth Ward failed to go beyond the initial election of officers.⁷¹ Bishop Kesler, however, adhered to the principles and he found it very easy to assume a self-righteous attitude concerning those who were not as malleable as he toward change. In the Fall, however, incidents occurred that preoccupied his mind, time, and energy and removed this discontent completely. One of these, a minor one because of its lack of attention in his writings, was his election in August of 1874, to Justice of the Peace, a position he would hold for eight years.

Then on November 30, 1874, there emerged a conflict of self-interest between the Keslers and the directors of the Utah Western Railroad. The foundation of this altercation lay with the establishment of rights-of-way; a company precedent vs. the terms believed appropriate and just by the Keslers. The granting of a right-of-way over the Kesler ranch, sixteen miles west of Salt Lake City, was not in question. What was in question, however, was Kesler's expectations of a \$1,500 compensation for a thirty-foot wide right-of-way across

his acreage. Arbitrators representing the rival interests were finally called upon to settle the matter and on January 5, 1875, their decision was to require the company to pay ". . . Eleven Hundred and thirty three Dollars & thirty three cts as well as a free pass over said road for life from S. L. City to farm."⁷²

By this time, the railroad tracks had reached about half way across the Kesler ranch, which was one mile in width, and Frederick, on February 3, decided to ride from his home in Salt Lake City to the ranch. On the way the conductor informed Kesler that he had received instructions ". . . not to stop the train betwene Chambers home & Black Rock for anyone."⁷³ Kesler was accordingly deposited at the Chamber home which was three miles distant from his. Bishop Kesler, still requiring a crutch for support, walked to the homestead.

The same occurred on February 16th, but this time, upon his arrival home, he found that ". . . the train had stopt at my House & put off 4 men but nothing was said to me about riding on to my place."⁷⁴

In exasperation, he took the case to the High Council of the L. D. S. Church, a kind of ecclesiastical Supreme Court in Utah.⁷⁵ Because "outsiders" were involved with the problem, the council decided they had no jurisdiction. Kesler next approached Brigham Young and H. B. Clawson, a member of the Board of Directors and Brigham Young's son-in-law.

Very much verry plain & pointed talk was indulged in all around the only question that I wishet for him to deside was weather the R. R. Co. should live up to thare contract or not it seemed to be an easy question to answer yet thare

seemed to be some sharp points which were hard to get over however on the whole he seemed to be in favour the side of them living up to their Bargain however it was left in such a Shape that time will have to develop these matters.⁷⁶

Shortly thereafter, the train began to stop at the ranch; and Brigham Young made two unsatisfactory attempts to purchase the property from the Keslers. These unfruitful ventures were made on June 17, and August 13, 1875. In a letter to Bishop Kesler dated June 16, 1875, Brigham Young stated:

I have been reflecting upon your offer to sell your place on the U. W. R. R. and think it may prove better for your health and your financial welfare to sell and engage in sheep raising, wine making, or some easy and pleasant occupation in the southern regions of our Territory . . . I would be pleased to see if we may be able to make a trade satisfactory to both parties.⁷⁷

Apparently a satisfactory trade was never made. Possibly in retaliation for Brigham Young's unfavorable decisions and actions concerning his marital and railroad difficulties, Kesler wrote a letter to Brigham Young on September 20 reminding him of a delinquent account.

circumstances beyond my control caused what little property I had to (be) divided amongst my wives which has left me without a home that I can call my own I feel as though I greatly need that money that I let you have when you was in great need in the year 1852 which was one thousand dollars in coin I feel as though I should receive ten per cent interest per annum from the date of it falling until the same is paid.

Your Brother in the Gospel

F. Kesler

P. S. I believe the above fell due March 3rd 1853.

A response of September 22, 1875 followed:

Bishop F. Kesler

Dear Brother

In reply to your favor of 20th, let me ask you to have the kindness the next time you call at my office to bring

with you my note for the amount mentioned if you have it,
as I am not in the habit of borrowing money without giving
my obligation for the same.

Brother in the Gosple
Brigham Young⁷⁹

That next visit to Young's office was on October 21, 1875, and
Frederick went with the disputed note and the computed amount owed
to him of \$3,200.

. . . he did not feel verry pleasant over it Said I had
made a presant of the money & the note might be a forgrd
one and said some oather hard things I told him that I
would and be willing to testify in any court in heaven
or on the earth that he did receive the money I saw it
counted got by Willard Richards & Thos Bullock he said
that Thos Bullock had forged the Note on him I said that
I saw Thos Bullock wright the Note & that I Saw Prt Young
sign his Name to the same after considerable talk he told
James Jack to pay the Note interest & all . . .⁸⁰

Kesler declined the interest payment and thus ". . . made him a
presant of over two thousand dollars."⁸¹ With his success concerning
this altercation, Kesler next addressed the railroad directors.

On October 22, 1875, he informed the Directors of the Utah West-
ern Railroad that they had but ten more days to pay the \$1133.33
before he would start charging them interest. Nothing, apparently,
came of his threat for on November 2, 1875, the High Council once
again became involved with the affair. Its decision reached the
Keslers on November 5; the payment was reduced to \$500, the life-time
pass was maintained, and the Keslers were to forfeit, by a warrantee
deed to the railroad company a fifty-foot wide strip across their
land. By the fifteenth of November, the matter was resolved, at least
until May 21, 1881, when the Keslers life-time passes had expired.
On that day Frederick was informed by ". . . Br. Wm Riter . . . that

the Present Rail Road company was not bound & was under no obligation to carry (Frederick) or wife on there Road free. He also said that (their) life passes Had run out 3 years ago."⁸² This conflict was, possibly, never resolved, for in 1883, Kesler was still seeking a settlement.

The remaining years of the elderly Kesler's life were possessed primarily with his untiring devotion to a cause, and that cause was his religion. As always, through his ordained ecclesiastical position, he displayed great concern for the members in his ward, visiting them as often as he could in sickness and in health, attending and often administering unto the various rituals of life and death, and organizing the numerous religious and social activities which occurred with regularity throughout the year. As a Mormon, he took pride and interest in all the temples constructed throughout the territory, particularly the one in Salt Lake City.

To him, as was the belief with most Mormons, a temple represented the most sacred of sacred structures, and so should be reserved for only the most faithful--which he considered himself to be. Before the completion of the Salt Lake Temple, Frederick and Jane would make monthly treks to the Logan Temple, the nearest one, from 1884-1893. These visits involved the Mormon practice of administering ordinances of exaltation for those who had died.⁸³ He, however, would also journey to the partially completed Salt Lake Temple weekly to observe the progress, often climbing, even with his damaged hip, as far up as the workmen.

On September 3, 1891, this seventy-five year old man was summoned to place one of the granite slabs on the center tower of the Salt Lake Temple.

. . . the Rock that had been [designated] for me to lay was Hoisted to the place which I at once proceeded to lay which I accomplished to the entire satisfaction of the Master Rock layer I Had finished it at 3:15 p.m. The Rock I Laid was Granite its weight was twelve Hundred lb its No. was V No. 1 & the 6th alphabetical course & is situated on the south side of the Center Tower on the west end of the Temple & is 210 feet High from the Ground & is the 3 stone Below the Ball which is the top rock of the tower the last 80 ft of ascent was . . . on ladders lashed fast with ropes to the Scaffolding that surrounds the Towers.⁸⁴

The following April 9, 1892, Bishop Kesler, his youngest son, and a neighbor visited the Temple to view the statue of the Angel Moroni placed on one of the spires of the Salt Lake Temple.

I was invited to ascend in rude elivator Just constructed for presant occaison . . . carried us safely up about 200 ft. then proceeded up to the Angel Moroni By stairway whare we arrived at 10 ocl am--I walket around the angel and toutched it with my hand I also Deposited my Name & . . . Archies written on a small piece of paper through the Bolt Hole that led in to the Center of the Ball which was hollow when the Bolt is put in its place the Ball or Cap Stone will be entirely closed up what is then within the Ball may not be seen for ages to come . . .⁸⁶

On May 23, 1893, after the expenditure of \$4,000,000 and 40 years of construction, the Salt Lake Temple was completed and dedicated to the Lord.⁸⁷ On that day, Bishop Kesler, was desirous of receiving a baptism to improve his health and also wished a baptism for a dead relative.

Prt. Lorenzo Snow anounced that I was to be the first person to be Baptised . . . every desirable blessing was pronounced on my head . . . I felt verry Greatly Honored By being the first one Baptised in the font I pray that I may be Blest according to the words of the servents of the Lord as well

as the Desires of my Heart it is an event long to be remembered.⁸⁸

Another activity which occupied the now elderly Kesler's life involved his appointment as warden of the Utah Penitentiary on March 17, 1880, after having served as one of the Board of Directors of the same for twenty years. Being bonded for \$10,000, his duties seemed only to make out an annual report for the Utah Legislature and occasionally to visit the institution. However, on October 7, 1886, while many of his brethren were imprisoned for polygamy under the Edmunds⁸⁹ Act, Warden Kesler and a polygamist's wife and children ". . . went to the penitentiary . . . not having a pass I was not allowed to speak to any of the Prisoners. Gov. West & the U. States martial ware presant but refused a Pass to see as at least to converse with any of our Breathern in Prison."⁹⁰

The Edmunds law, nevertheless, was unsuccessful in its attempt to force a metamorphosis in Latter-day Saint attitude. Polygamy was a religious principle on which they would not yield. Realizing this, the United States Congress increased the already incredible pressure by adding, on February 19, 1887, an amendment known as the Edmunds-Tucker Act.

The days of this independent kingdom were now numbered as this act would curb the temporal power of the Mormon church. Three years after enactment when the Supreme Court approved the Edmunds-Tucker Act, which had become law without President Grover Cleveland's signature, the accommodation and integration into the United States was inaugurated. Indeed, it was an inevitable accommodation and

integration which would have, if recognized, occurred naturally. Zeal, however, was impatient, and time was no ally.⁹¹

When President Cleveland issued the proclamation of January 4, 1896 admitting Utah as the forty-fifth state, the turbulent territorial experience ended. It marked, however, for many Mormons, a surrender on such issues as the economic and political control of their commonwealth and polygamy.

Utah Becomes a State . . . on an equal footing with all the oather States it certainly marks a great epoch in our history as a Church . . . it matters not what matters prompted our becoming a state and of being admitted in to the Union if the motives ware eevil the Lord will overrule for our Good as Latter-Day Saints.⁹²

On Monday, June 12, 1899, Bishop Frederick Kesler, at the age of 83, died at his residence, 558 West North Temple, Salt Lake City, Utah. The last illness had been a very severe and painful one and

. . . death brought a happy relief . . . Frederick Kesler was a man greatly beloved and respected by all who knew him . . . From a poor orphan boy he worked his way upward in life, becoming a truely great and good man . . .

His life was gentle; and the
elements

So mixed in him that Nature
might stand up

And say to all the world,

This was a Man!

Archie Kesler⁹³

End Notes

¹Frederick Kesler Autobiography, Manuscript Collection 49, The Papers of Frederick Kesler, 1837-1899, Special Collections Department, University of Utah Libraries, Salt Lake City, Utah.

²Ibid., p. 1.

³Ibid.

⁴Ibid., p. 2.

⁵Ibid.

⁶Ibid.

⁷Ibid., p. 3.

⁸Ibid.

⁹Ibid., p. 4.

¹⁰Ibid., p. 5.

¹¹Ibid.

¹²Ibid.

¹³Ibid.

¹⁴Ibid., p. 6.

¹⁵Baptism and confirmation are L. D. S. Church ordinances necessary to membership. They represent a covenant to God, to the Mormon doctrines, and are a remission of sins. Thomas F. O'Dea, The Mormons (Chicago: University of Chicago Press, 1957), pp. 35-37.

¹⁶Kesler Autobiography, p. 6. All worthy male members were ordained to a lay priesthood, of which there were (and still are) two levels: the lesser or Aaronic priesthood, which administered ordinances of the preparatory gospel including rites such as baptism and the sacraments of bread and wine; and the higher of Melchizedek priesthood, which held the "keys of spiritual blessings of the church" and supervised generally the new kingdom of God. Offices in the Aaronic priesthood were deacon, teacher, and priest. Those of the Melchizedek were elder, seventy, and high priest. For further information see: Thomas F. O'Dea, The Mormons, pp. 174-185.

¹⁷Ibid., p. 7.

¹⁸Ibid., pp. 7-8.

¹⁹The Endowment Ceremony may be performed for the participants themselves, or by proxy for the dead. The ceremony seals men and women in marriage for time and eternity. Thomas F. O'Dea, The Mormons, pp. 58-60.

²⁰Kesler Autobiography, p. 9.

²¹"A Veteran of 1846: Leaves from the Journal of Bishop Frederick Kesler," Salt Lake City Deseret News, 29 May 1897.

²²Kesler Autobiography, p. 10.

²³Kesler claimed this to be the first flour mill in what became the state of Nebraska. Kesler Autobiography, p. 11.

²⁴Kesler Autobiography, p. 11.

²⁵Ibid.

²⁶Box Elder is the valley in which Brigham City is located, settled in 1849. Edward W. Tullidge, The History of All the Northern, Eastern and Western Counties of Utah; Also the Counties of Southern Idaho, vol. 2: Tullidges Histories (Salt Lake City: Juvenile Instructor Press, 1889), pp. 289-305.

²⁷Kesler Autobiography, pp. 11-12.

²⁸The Public Works Department was established to provide the dual purpose of providing gainful employment for newly arrived immigrants while building the kingdom at the same time. Leonard J. Arrington, Great Basin Kingdom: An Economic History of the Latter-day Saints 1830-1900 (Lincoln: University of Nebraska Press, 1966), pp. 108-112.

²⁹The ward is the basic geographical unit of Mormon church life. Similar to a parish or congregation, the ward organization represents everyday life of the church and is the arena for the sense of group identity. Each ward has a priesthood organization presided over by a bishop. It is the duty of a bishop to attend to the earthly and spiritual matters of those within his ward. For further information see: Thomas F. O'Dea, The Mormons, pp. 155-185, and Leonard J. Arrington and Davis Bitton, The Mormon Experience: A History of the Latter-day Saints (New York: Alfred A. Knopf, 1979), pp. 206-219.

³⁰Arrington, Great Basin Kingdom, pp. 165-262.

³¹"A Veteran of 1846," Deseret News, 29 May 1897.

³²Ibid.

³³Ibid.

³⁴Arrington, Great Basin Kingdom, pp. 162-170.

³⁵Arrington and Bitton, The Mormon Experience, pp. 164-169.

³⁶Arrington, Great Basin Kingdom, pp. 170-182.

³⁷Ibid., p. 179.

³⁸Ibid., pp. 189-192.

³⁹Kesler Diary no. 1, 22 January 1858, Kesler Papers, University of Utah Libraries, Salt Lake City.

⁴⁰Arrington, Great Basin Kingdom, p. 181.

⁴¹Arrington and Bitton, The Mormon Experience, pp. 168-169.

⁴²Kesler Diary no. 1, 18 March 1858.

⁴³Ibid., 21 March 1858.

⁴⁴Arrington, Great Basin Kingdom, p. 192.

⁴⁵Kesler Diary no. 1, 18 July 1858.

⁴⁶Arrington, Great Basin Kingdom, p. 198.

⁴⁷"A Veteran of 1846," Deseret News, 29 May 1897.

⁴⁸An institution of the early Latter-day Saints church which had great continuing influence within the Great Basin was the economic mission. The earliest were voluntary efforts, but as the church expanded, a system of appointed missions evolved where selected individuals were permitted to choose an area and methods employed. In the Great Basin, because of the distance and isolation from the eastern states, individuals were selected by divine inspiration or "called" to proceed to a predetermined area and prescribed mission. The foundations for these missions were either economic or theological and helped to maintain the viability of this pioneering community. Arrington, Great Basin Kingdom, p. 33.

⁴⁹"A Veteran of 1846," Deseret News, 29 May 1897.

⁵⁰The Church Train, established in 1859, was the third attempt by the Mormons to establish their own importing and exporting facilities. It was an organization of Mormon teams operating between

the Missouri Valley and Utah which carried immigrants and their supplies, manufactured goods, machinery, and other staple imports to Utah and immigrant supplies and exports to Missouri. Arrington, Great Basin Kingdom, p. 206.

⁵¹Kesler Diary no. 2, 15 September 1859.

⁵²Ibid., 18 September 1859.

⁵³Ibid.

⁵⁴Kesler accumulated and cultivated on his farm/ranch such things as ". . . calves, potatoes, corn . . . I have over 90 peach trees in Bloom Besides apple, plum, cherry, Almond, apricot & currents in abundance." Kesler Diary no. 3, 27 April 1861.

⁵⁵Kesler Diary no. 3, 14 November 1865.

⁵⁶Ibid., 1 May 1866.

⁵⁷Arrington, Great Basin Kingdom, pp. 245-251.

⁵⁸The "Word of Wisdom" was a revelation announced by Joseph Smith at Kirtland, Ohio in 1833, which suggested that the use of such things as strong drinks, tobacco, tea, and coffee were unhealthy for man. O'Dea, The Mormons, pp. 145-146.

⁵⁹Kesler Diary no. 3, 1 January 1871.

⁶⁰Ibid., 3 August 1872.

⁶¹Ibid. According to Leonard J. Arrington in his momentous work, The Great Basin Kingdom, the School of Prophets was disbanded because the economic forces introduced by the advent of the transcontinental railroad were satisfactorily adjusted and the absorption of the School into the United Order movement. pp. 245-246.

⁶²Kesler Diary no. 3, January 1872.

⁶³Kesler Diary no. 11, 22 August 1898.

⁶⁴Kesler Diary no. 3, 11 March 1873.

⁶⁵Abigail to Frederick Kesler, 3 March 1873, Kesler Papers, University of Utah Libraries, Salt Lake City.

⁶⁶Kesler Diary no. 11, 22 August 1898.

⁶⁷Ibid.

⁶⁸Leonard J. Arrington, Feramorz Y. Fox, and Dean L. May, Building the City of God: Community and Cooperation Among the Mormons (Salt Lake City: Deseret Book Company, 1976), pp. 135-154.

⁶⁹Kesler Diary no. 3, 2 June 1874.

⁷⁰Kesler Diary no. 4, 28 June 1874.

⁷¹Arrington, Fox, and May, Building the City of God, p. 221.

⁷²Kesler Diary no. 4, 5 January 1875.

⁷³Ibid., 3 February 1875.

⁷⁴Ibid., 16 February 1875.

⁷⁵O'Dea, The Mormons, pp. 178-179.

⁷⁶Kesler Diary no. 4, 10 June 1875.

⁷⁷Brigham Young to Frederick Kesler, 16 June 1875, Kesler Papers, University of Utah Libraries, Salt Lake City.

⁷⁸Kesler Diary no. 4, 20 September 1875. Within Kesler's papers are several references of loans made to other individuals within the territory.

⁷⁹Brigham Young to Frederick Kesler, 22 September 1875, Kesler Papers, University of Utah Libraries, Salt Lake City.

⁸⁰Kesler Diary no. 4, 21 October 1875.

⁸¹Ibid.

⁸²Kesler Diary no. 5, 21 May 1881.

⁸³According to Thomas F. O'Dea in The Mormons, baptisms for the dead were deemed necessary by Joseph Smith so as to salvage the souls of those who had died without a knowledge of the Mormon gospel. By a living member of this church performing the ceremony as proxy, salvation and the progression into the several heavens in the after-life was possible. p. 57.

⁸⁴Kesler Diary no. 9, 3 September 1891.

⁸⁵For Mormons, the visit by Angel Moroni to Joseph Smith during the night of September 21, 1823, signaled the documentary foundation of Mormonism. A statue representing the angel now crowns the Salt Lake Temple. In one hand the figure holds a trumpet; in the other are clasped plates symbolic of the Book of Mormon, the ancient

religious record whose existence Smith claimed was revealed to him in 1823. Arrington, The Mormon Experience, p. 8.

⁸⁶ Kesler Diary no. 9, 9 April 1892.

⁸⁷ Arrington, Great Basin Kingdom, p. 401.

⁸⁸ Kesler Diary no. 9, 23 May 1893.

⁸⁹ In 1882 Senator George F. Edmunds, a Republican from Vermont, introduced an amendment to the already existing Anti-Bigamy Act of 1862. Edmund's proposal was aimed at disqualifying George Q. Cannon as the territorial delegate to the United States Congress. It declared polygamy a felony, defined unlawful cohabitation and provided a misdemeanor penalty for it, disfranchised polygamists, nullified their eligibility for office and jury duty, and placed territorial elections under the control of a presidential commission instructed to issue certificates to election only to qualified--nonpolygamous--candidates. Despite some opposition, this act, the Edmund's Act, was signed into law by President Chester Arthur on March 22, 1882. This act and several others dealing with polygamy, are adequately discussed in several works on Utah's history. A good discussion can be found in The Mormon Experience by Leonard J. Arrington and Davis Bitton, pp. 161-184.

⁹⁰ Kesler Diary no. 7, 7 October 1886.

⁹¹ Arrington and Bitton, pp. 180-184.

⁹² Kesler Diary no. 9, 4 January 1896.

⁹³ Kesler Diary no. 12, 12 June 1899.

MILLING ACTIVITIES

Frederick Kesler arrived in the Salt Lake Valley on October 1, 1851, approximately four years after the advance company of Mormon settlers. Within that four year period he had traveled among the eastern United States practicing his chosen trade so as to acquire the necessary money and provisions to march to Zion. Conversely, the Saints in Great Salt Lake City had within that four year period, begun following their course of empire which would establish their kingdom, their Zion.

The process of settlement for the Mormons required harmonizing man with his chosen environment--a domain located within the harsh Great Basin, one thousand miles from any population center, with doubtful soil and climate for crop cultivation and inhabited with several Native American groups. These conditions, which would undoubtedly have presented a bleak picture of a desert basin to anyone else, offered the Mormons exactly what they desired--development without interference.

By seeking refuge and stability within the Great Basin, the limitations which would address the Saints had to be contended with. The arable land nestled with the Rocky Mountains on the east, the Colorado River on the south, the Sierra Nevada on the west, and the watershed of the Columbia River on the north, was mainly in narrow strips adjacent to streams running through the valleys. The land

level enough to cultivate or near enough to water to irrigate was also limited. Added to this, special desert farming techniques developed through trial and error, were necessitated because of the high saline or alkaline content in much of the potential farm acreage. In the northern valleys, the soil was rich and deep, in the southern thin and fine.¹

Water supply was an additional problem to contend with. Annual precipitation averaged ten to twelve inches per year. Fortunately, most of the valleys within the Basin contained several small streams which originated in the nearby mountains and were sustained by the gradual melt of the snow pack throughout most of the summer months. Those areas that were well-watered, tended to have short growing seasons, and areas with longer growing seasons tended to have less water and less fertile soils. The long-term agricultural potential of the region was obviously limited and restricted.

The timber resources within the valleys of the Great Basin consisted of occasional clumps of cottonwood and box elder along the streams. The nearby canyons and mountains supplied an adequate amount of softwoods, primarily pine and fir, for initial development.

Utah was founded necessarily on an agricultural basis. All the manifestations of nature, wind, frost, drought, pests would promise weal or threatened woe to this pioneering society, and represented a gamble full of expectancy and hope. The Great Basin, however remained as "the place" for existence and subsistence, refuge and stability for the Latter-day Saints, and through means of economic sagacity, indomitable industry, and luck, Zion perservered.

The advance colony arrived in the valley of the Great Salt Lake on the 24th of July, 1847. Soon after, all were divided into communities for work. "Before the end of the first week a tract of land was ditched, plowed, and planted with potatoes. City Creek Canyon was dammed for irrigation, an area of forty acres was fortified after the New England fashion, by facing log houses inwards and by a palisade of timber hauled from the ravines; the city was laid out upon the spot where they first rested, the most eligible site in the valley, and prayers with solumn ceremonies consecrated the land."²

In September, the main party of emigrants, 1540 persons, arrived into the valley to join the advance company. Including this influx plus those from California and other groups, there were some 1681 persons who would winter in Salt Lake.

The High Council, consisting of the Presidency and 12 counselors, allocated and regulated economic rights and privileges within the community. In October, 1847, they asked Charles Crismon to build immediately a small grist mill on City Creek.³ To do this he was to be "sustained" with "labor," and as much grain as the people could be persuaded to spare. By November, the mill was in operation. At this time the stake presidency and the High Council took under advisement the regulation of the grinding price and "all things worthy of note."⁴ On December 2, 1847, they decided "that Brother Charles Crismon be allowed twenty cents per bushel for grinding and that he keep an account of the number of bushels, who the grinding was done for and the time occupied in grinding, and if the payment agreed upon did not suffice, the High Council would reconsider the matter."⁵ Later, John

Neff was authorized to erect "a good flouring mill" before the next harvest.⁶ Four saw mills were constructed or authorized; a carding mill frame was erected; and a water-powered threshing machine was put into operation that would thresh and clean 200 bushels per day. Because of the restricted timber resources, conservation regulations were adopted; no person was allowed to build with logs without permission; no person was entitled to more than he could use quickly; and only dead timber could be used as fuel.⁷

In spite of all the careful planning and regulation, a food problem emerged. Livestock destroyed all but the potato patch in the fall and in the winter, and the livestock was preyed upon by weather and predators. During the following spring the harvest of '48 was devastated by late frosts and hungry crickets. To combat the now acute hunger problem economic regulation under the church presidency, Twelve Apostles, the Salt Lake High Council and the Council of Fifty, was instigated. Under the guise of the provisional government of the State of Deseret, they regulated the distribution of land, control over natural resources, the construction of public works, the provision of a circulating medium, and the prevention of hunger and want.⁸ With Utah's territorial status in 1851, this arrangement was only altered superficially, for it operated as a "ghost government" until the 1870's.⁹

On September 24, 1848, Brigham Young and Heber C. Kimball were appointed to apportion the city lots to applicants, and permission was granted to build on these lots during the fall and winter.¹⁰

In 1849, the situation was not much improved. Faced with hunger, inadequate clothing, poor housing, and a great inefficiency of tools and equipment, the Mormon colonists believed their efforts were doomed to failure. In their two years in the valley the settlers had yet to reap an adequate harvest. The challenges of this new settlement in the harsh environment of the Great Basin, coupled with the separation from the wants of the world, confronted this community with the alternative of producing or going without.

The discovery of Gold in California gradually diminished what seemed the inevitable--failure. Thousands of forty-niners began to pass through the Salt Lake Valley on their way to California, leaving a wake of abandoned or cheaply traded goods and wagons. One such traveler, John B. Hazlip, commented,

We are now encamped in the Mormon City, fourteen hundred miles from the states. The city is laid off in a very handsome style and is about five square.--The inhabitants number five thousand at his time, and are increasing in number every day. They have erected a fort, and are about commencing some fine buildings. The city is watered by two or three fine streams. They have to water their wheat and corn, and vegetables. They now have fifty thousand acres in wheat. Flour is scarce here; I do not know a single family in the city that has a supply. Every family was desirous to purchase from us, and offer from ten to fifteen cents per pound.--They do not want money here; they want sugar, coffee, tea and flour.¹¹

A fluke of fortune combined with a good harvest later that fall and Mormon self-help led this community towards viability and economic stabilization which encouraged the Mormon predilection of independence and emancipation from industrial vassalage to distant and expensive markets.

The immediate call was for industries which would supply the most pressing wants of the Mormon group, those that ground grain and sawed the timber, and supplied such other services as blacksmithing, carpentering and shoe-making. Salt Lake City was the first beneficiary of these needed industrial beginnings. In the subsequent expansion from valley to valley, mills, particularly, were one of the first industries established representing the fundamental necessities.

In 1851, in a letter issued from the First Presidency to the membership, the extent of the milling activities within the territory was as follows:

There are four grain and five sawmills in operation, or nearly completed in Great Salt Lake County; one grain and two sawmills in Davis County; two grain and three sawmills in Utah County; one grain and two sawmills in Sanpete County, one grain and one sawmill in Iron County; and one sawmill in Tooele County; and an increasing desire and exertion to promote domestic manufactures prevails throughout the territory.¹²

Twenty-seven mills had thus been established in the territory within five years after the initial arrival of the Saints into the Valley; and, before Kesler had arrived. Typifying, as they do, the initial desires of food and shelter, mills were the first industries to be established within Utah's pioneering communities. As they expanded from valley to valley in the territory, these industries, representing simple and fundamental necessities, were not included within the immediate community design (as was the combination meeting house/school house) but rather "became an ambition. . . . A blacksmith shop & a shop, usually on the lot or in the home of the artisan, supplied the simple wants of the community."¹³

Indeed, these settlements upon their introduction into an area were generally thrown back into a preurban stage--consisting typically of a small number of people, gathered in a homogenous group, with their energies almost wholly absorbed by the quest for food.¹⁴ From this base, because of stabilization and a surplus of food, the process of evolving into more complex societies could take place. This food surplus permitted the specialization of labor that afforded the introduction of industrial needs such as mills. Thus a mill possibly represented stability and future to these pioneering societies, and provided a new and bountiful source of energy and existence. From this preindustrial past, many of these communities moved into their industrial future.

The control over natural resources, was conducive to the stewardship principle adopted in relation to land ownership, that was the basic natural resources were subject to public rather than private ownership. However, a public authority was appointed to supervise the apportionment of water for culinary, industrial, and agricultural purposes in hopes that this would provide an equitable division and maximum use of the available water supply.¹⁵ Within each district or ward, a "watermaster" was appointed by the high council, a duty usually conferred upon the bishop of the ward.

Occasionally, the legislature of the State of Deseret would make exclusive grants of control of water privileges in designated streams to prominent individuals within the social group. By an enactment on December 9, 1850, for example, Ezra T. Benson was granted this prerogative over Twin Springs and Rock Spring in Tooele county "for mills

and irrigation purposes."¹⁶ Brigham Young, on the same date, approved a measure confirming on himself ". . . the sole control of City Creek, and canyon; and that he pay into the Public Treasury the sum of five hundred dollars therefor."¹⁷

These exclusive grants, according to Andrew L. Neff, did not confer a monopolistic privilege of use, but rather, "the exclusive right to orderly regulation and apportionment of water usage in accordance with socially desired ends."¹⁸ Although constituting a legal monopoly, Neff further inferred that it was merely a ". . . desire of centralizing responsibility as a means of averting interminable controversies over this prime essential in food and crop production under arid conditions."¹⁹

In 1852, with the granting by Congress of territorial status to Utah, the jurisdiction over water, timber, and mill sites was conferred upon the county courts. Chapter 1, section 38 of the session laws of 1852 states:

The county court has control over all timber, water privileges or any water course or creek; to grant mill sites, and exercise such power as shall preserve the timber and subserve the interests of their settlements in the distribution of water for irrigation or other purposes.²⁰

The powers here delegated to the respective county courts, a body consisting of a probate judge and three select men, were extensive and continued until the law was repealed in 1880.²¹ This power had been fully exercised in Salt Lake County and, to a lesser degree, in Weber, Utah, Davis, Box Elder, Sanpete, and Cache Counties, but in the more remote counties, not at all. This was perhaps due to the fact that there was plenty of water and few settlers.²²

The idea behind the legislation was for the court to control the waters so as to best develop the settlement of the territory and to distribute the water as widely as possible for irrigation. This act was also based upon the theory that the water of the territory belonged to the public or rather, to the state or territory.²³

Among the first acts performed by the county court in assuming control of the water of their perspective counties, was the appointment of water-masters. These agents were to carry out the orders of the courts and personally see that the water was properly distributed. The courts appointed the water masters on their own initiative or upon recommendation. As the ward bishop, in the Mormon system, was the local community head or leader, and as the control over community water had been under his jurisdiction prior to 1852, often times that bishop or someone recommended by him, continued in this capacity. If a mistake had been made in the appointment of a man whose services were unsatisfactory, a petition for his replacement could be presented by those under his authority.

The plan of having the court act independently and without previous consultation with the irrigators in the appointing of water masters did not appear to give general satisfaction. Davis County, in 1876, devised a plan that became the generally accepted one.²⁴ The county was divided into districts defined by the areas supplied with water from a given stream or spring and the users met in a meeting to nominate a watermaster for the ensuing year. The court agreed to appoint this certain individual for each of the several districts. It was specified, however, that these individuals would

still be under the control and supervision of the county court itself.²⁵

The mountain streams flowing down steep canyons offered excellent opportunities for power plants. The young commonwealth was in great need of saw mills and flouring mills and the necessary power to run the machinery was at hand from the mountain streams. Long before the waters reached the point where they were diverted for irrigation they could be utilized to develop this necessary power. The county court assumed jurisdiction over these power sites and undertook to administer them in the interests of the public and also to prevent injury to agriculture.

Considerable water power was necessary for operating a mill. Because water and timber were limited and controlled resources, mill sites and the subsequent control over the canyon resources were granted to those deemed capable of handling such a community responsibility, usually prominent church leaders. These individuals, accordingly, enjoyed the right to charge access and usage fees to pay the cost of building and maintaining the roads, machinery, and other improvements.²⁶ Mill sites were controlled resources as well. There were great advantages to this system for the rights of individuals were secured as to their irrigation and milling needs. As the individuals desiring a mill were required to petition for rights to build and utilize the water resources, unsuitable sites and builders were eliminated before any large expenditures were made.

Within this background of economic regulation and emerging stability, Frederick Kesler, a millwright, arrived on October 1, 1851.

In the ensuing fifteen years, Kesler would provide the means by which many young settlements developed into or maintained industrialism. This he would do by providing the initial means for satisfying the basic timber and flour needs within a community or by relieving overburdened or outdated milling facilities. In this manner, Kesler contributed to the establishment and future of the Utah Territory.

Box Elder County

Soon after his arrival, Kesler desired to settle in Box Elder and build his own mill. Brigham Young, however, did not approve of his plan to settle in this community of about eight families living within an old fort, and so counseled him to reside in Salt Lake City and superintend mill activities for the L. D. S. church. Young, by this action, also did not approve of Kesler owning and operating his own mill, which would have required special water, land, and toll privileges.

In the fall of 1854, the church took vigorous action and sent fifty families to strengthen the Box Elder settlement which ". . . in its condition and appearance was of the poorest kind."²⁷ Just as important, perhaps, was the delegation of one of the apostles, Lorenzo Snow, to this settlement to ". . . guide and direct its spiritual and temporal existence."²⁸ This languishing and northernmost Mormon settlement soon had "new infusions of colonizing life and energy."²⁹ Snow and Jesse W. Fox, the Church surveyor, chose a new site and laid out the city in half acre lots. This new site was named Brigham City.

Brigham City was now situated at the base of the northern portion of the Wasatch Mountains, slightly to the north of the bottle-neck point where the Great Salt Lake makes its nearest approach to the mountains. Here, in contrast to the original settlement, the soils and subsoils were well-drained, and the danger of the ground becoming water-logged from irrigation alleviated. Here, also was the important advantage of a longer growing season than was found on lower lands. Due to the slope of the land and the proximity of the mountains, the air drainage prevented early frost formation which is likely to occur on bottom lands.³⁰

By the summer of 1853, there were about twenty-four families located in a second fort³¹ and by October 6, 1853, an official count of members of the Church of Jesus Christ of Latter-day Saints revealed a total of 204 members in the Box Elder Ward.³² In 1854, there were sixty families located within the village and by 1855,³³ fifty more families were added to the population when Lorenzo Snow heeded the call of the Mormon Church to strengthen the settlement. The conference report of October, 1855, showed 443 members³⁴ and by 1861, this number had increased to 1084 members.³⁵

When a group of people have gone into a new land to make permanent homes, the immediate individual needs take precedence. When these needs have been met, a few members will commence practices that benefit the entire community. This marked the beginnings of manufacturing. When Kesler was examining Box Elder as a future homesite, a small flour mill was in contemplation, possibly inspired by Kesler's plans, for in 1851-1852 Elisha Mallery built such a structure on Willow

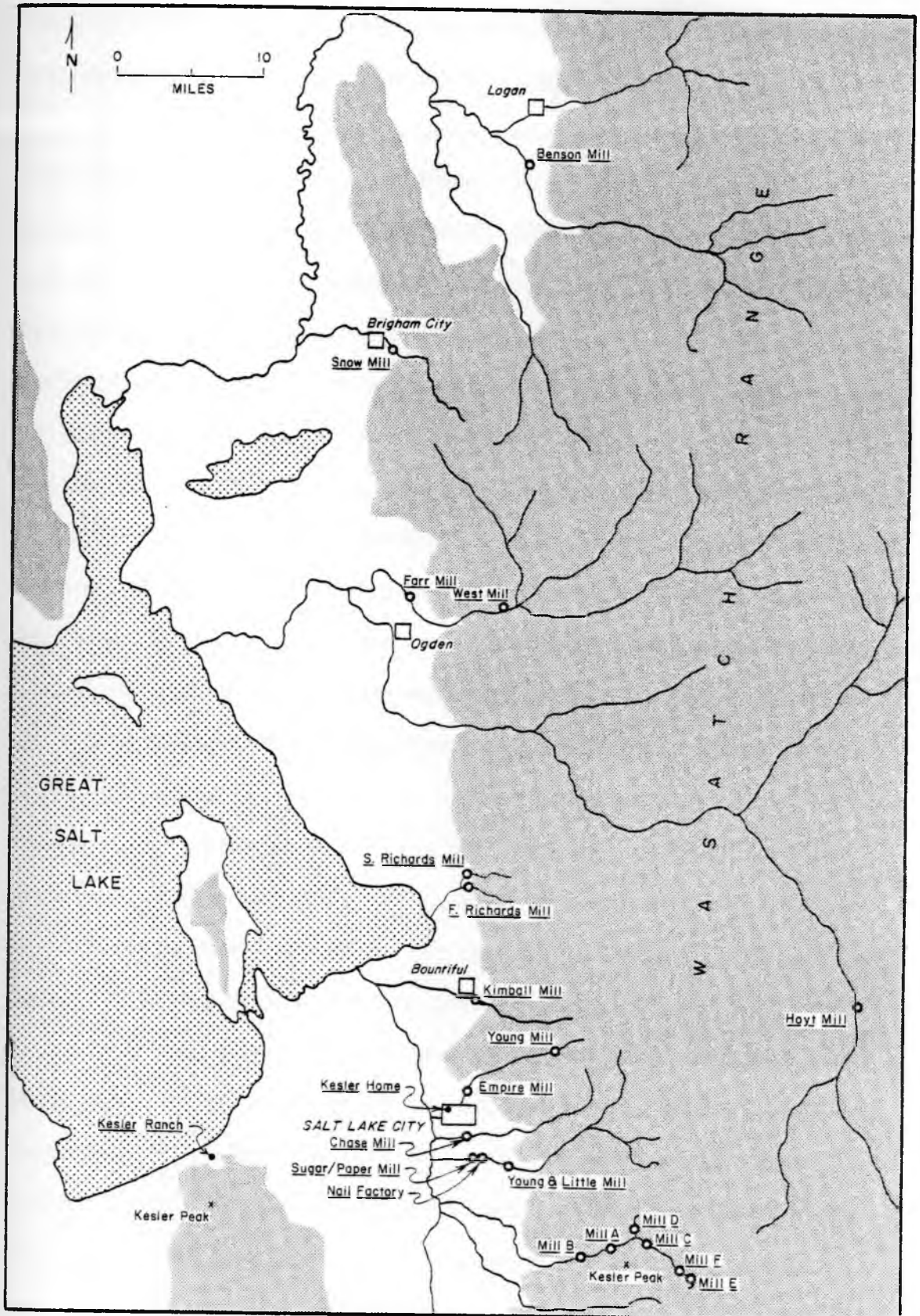


Fig. 1. Map of mill locations

Creek and employed T. W. Brewerton as miller.³⁶ The structure was of log construction and was operated by water power.

In 1855 or 1856, with the community expansion, a new grist mill located on Box Elder Creek was begun for Brigham City. Kesler's talents were involved with this mill--a mill he had aspired to build and own himself. As Lorenzo Snow was the assigned temporal and spiritual leader of this community, most likely this mill and the subsequent water control of Box Elder Creek was under his guidance and control.

The new mill was not utilized within the community until 1857, for in 1854 and 1855 the harvests were devastated by crickets and locusts, and in 1856 by a drought.³⁷ Then, on May 28, 1858, with the approach of Johnston's Army into the Salt Lake Valley and the resulting "Move South", the machinery was removed from the plant by Frederick Kesler and crew by the advisement of Brigham Young and D. H. Wells, to be placed within a mill in Provo, the destination of the Saints in their "Move South". On July 17, shortly after an official pardon of the Mormons by President Buchanan and after the machinery had been installed, Kesler was counseled by Brigham Young to replace the machinery in the Box Elder mill. By August 16, 1858, the community of Brigham City was utilizing their grist mill.

Lumber was also a needed commodity within this community. The first saw mill was constructed in 1854 and another was built shortly afterwards by the Ettleman Brothers near the mouth of Box Elder Canyon.³⁸ In 1856, Bishop Alvin Nichols received permission by the county court to erect a saw and shingle mill also near the mouth of the canyon.³⁹ Lorenzo Snow and Samuel Smith also built a saw mill

the following year. This saw mill was a product of Frederick Kesler's talents. By 1866, with the utilization of these mills besides several others, the timber resources of Box Elder Canyon were devastated and the mills along with the same techniques were moved to Paradise Canyon.⁴⁰

The value of any natural resource of any area is dependent upon the demand or market and upon accessibility. Brigham City is not unique in this instance but rather another example of the use and often times abuse, of the accessible resources that met the communities basic needs. The timber from the canyons and river banks, the natural grasses and shrubs that provided pasturage, the soils that provided farms, and the water and water-power from Box Elder Creek that turned the mills and irrigated the farm lands, all contributed to the general welfare of the early settlement and provided the means for the continuum of the community.

Davis County

In 1851, Heber C. Kimball, First Counselor of the L. D. S. Church decided it was a propitious time to furnish the North Canyon Ward, near Bountiful with a flour mill. Besides being a good investment, the services that such a mill would provide were needed by this farming community.⁴¹

The history of this Mormon settlement within South Davis County begins virtually where Salt Lake City did, with the vanguard of the migration which entered the Salt Lake Valley in July of 1847. Next to Salt Lake City itself, the south Davis County region holds claim

to the earliest Mormon settlement in Utah. These settlements, which included Sessionville, Centerville, and North Cottonwood, were not established, however, in the typical Mormon fashion through directed colonization, but emerged as undirected and unplanned off-shoots from the parent center.⁴² They, in fact were originally conceived as pasturage ground for the cattle herd which had crossed the plains with the saints to the Great Basin.⁴³

After the initial exploration of the narrow strip of land north of Salt Lake City by Captain James Brown and party, Perrigrine Sessions was given the charge of a herd of the church cattle. As a result, on September 29, 1847, Sessions accompanied by James Brown, established the community which was to become known as Sessions settlement, later Bountiful.

In the spring of 1848, five families joined Sessions. Initiating agriculture was a priority to this infant community, understandably. Unfortunately, the plague of crickets which had brought the inhabitants of Salt Lake City to a near state of famine also struck the meager plantings within this and other communities throughout Davis County. The arrival of fall rendered about 500 bushels of grain along with an additional twenty families who had arrived with the second year exodus of saints from Winter Quarters.⁴⁴ There were now twenty-five families, most living within their wagons.

Apart from cricket and grasshopper devastation which occurred again in the summer of 1849, there existed two problems which were primary to those utilizing the land for agricultural purposes. The first was finding a piece of available land to farm and the second,

getting water for irrigation. Each settler, in turn, was addressed with these, in particular squeezing a share of the water from streams that had already been claimed by previous arrivals.

With the establishment of the territorial legislature of Davis County and the subsequent division into wards in 1850, the entire area was awarded a separate political identity from Salt Lake City. At this time the jurisdiction over such problems was managed primarily by the ward bishops. In 1851, however, the General Assembly overrode this prerogative by granting to Heber C. Kimball the exclusive control of the waters of North Mill Creek Canyon, where he already had established a saw mill, and the waters of the next canyon north.

CHAPTER VIII.

AN ORDINANCE granting the Waters of North Mill Creek Canyon, and the Waters of the next Canyon North, to Heber C. Kimball.

SEC. 1. Be it ordained by the General Assembly of the State of Deseret: That Heber C. Kimball have the exclusive privilege of conveying the waters of North Mill Creek Canyon, and the waters of the Canyon next north, to wit: about half a mile distant to some convenient point below the mouth of the two canyons, and of appropriating the same to the use of a saw mill, grist mill, and other machinery.

SEC. 2. Nothing herein contained shall prevent the waters aforesaid from being used, whenever and wherever it is necessary for irrigating.

Approved Jan. 9th, 1851.⁴⁵

Then, in 1852 these resources, as well as the timber resources, were controlled by the county courts. For every creek having any available water for irrigation, a water master was appointed. "In March of 1852, the county court of Davis County appointed fifteen men to this position."⁴⁶ Kimball's grant, at this time, also came under

the perusal of county authority. These grants were afterwards confirmed by territorial legislation.⁴⁷

As mentioned previously, Kimball's first mill attempts centered upon the lumber industry. This mill, after overcoming many problems and including relocating twice, was completed in 1849.⁴⁸ As was recognized as a benefit of mill ownership, Kimball, rather than charging a toll, was given much of the canyon timber outright; ". . . thus, he was assured a good supply of logs for his investment."⁴⁹ This mill, later owned by E. Whipple, was supplemented by another built by William Henrie on Stone Creek in 1852.⁵⁰ Then, in 1855, Tolman-Holbrook constructed another to meet the ever growing demands of an expanding community.⁵¹

With all of these, those who were granted mill sites by the county court, the private investment incurred with the construction and or improvements of the access to the canyon resources was alleviated by users fees. For the use of a road, this payment took the form of a toll, paid in logs or cash assessed by the wagon. If it were for the use of a saw mill, it might be given by paying a percentage of the loads of cut lumber that had been withdrawn.⁵²

Then, in 1851, sensing another need of this community, Heber C. Kimball laid the groundwork for a flour mill. The site chosen, one mile southeast of the present Bountiful tabernacle, was surveyed by Jesse W. Fox, Heber C. Kimball, and Frederick Kesler. Kesler was also the architect (millwright), and the machinery was installed by Appleton Harmon.⁵³ By April 27, 1854, the structure was completed and the milling process begun.

NOTICE
for the Public Good.

The subscriber would respectfully inform the inhabitants of Davis County, G. S. L. and adjoining counties, that his new Flour Mill in the Sessions Settlement, will be in successful operation for grinding on monday the 17th inst., but would suggest to whom it may concern, that every person bringing wheat had better clean it as well as they can by fanning mill, as I have not been able to put up a screen or a smut-machine yet, but the public may rely on both being completed by the first day of June next, if the Lord will.

By next harvest, I intend to have an additional run of the best French Burr stones in motion; at present I will do the best I can, but be sure to bring your wheat well cleaned, if you want good flour.

Let every person who brings wheat to this mill have each sack properly marked with his name in plain legible letters to prevent confusion and disappointment.

H. C. KIMBALL⁵⁴

The harvest years of 1855 and 1856 were ridden with insect infestation as well as by drought. If this were not enough, strong winds swept through the Davis County communities and did a great deal of damage to homes, public buildings, as well as to the orchards and crops of the fields.⁵⁵ The resulting famine of 1856 was inevitable.

Heber C. Kimball, (Feb. 24, 1856) in a letter to his son who was on a mission to England commented about the plight of this community as well as others throughout the territory.

. . . My family at this time, consists of about one hundred souls, and I suppose that I feed about as many as one hundred besides. My mill has not brought me in, for the last seven months, over one bushel of toll per day, in consequence of dry weather and the water being so frozen up-which would pay my miller, when the drouth came on, I had about seven hundred bushels, and I have only about twenty-five bushels of corn, which will provide for my own family until harvest. Heber has been to the mill to-day, and has brought down some unbolted flour, and we shall think ourselves doing well with half-a-pound a day at that. . . . You must remember that I did not raise one spoonful of wheat last year, and I have

not received any from any other source than the mill. Brother James planted some late corn which we obtained about forty bushels, and rather poor at that. We have some meat and, perhaps about seventy bushels of potatoes, also a very few beets and carrots; so you can judge whether or not we can get through until the harvest without digging roots; still we are altogether better off than most of the people in these valleys of the mountains. There are several wards in this city who have not over two weeks provisions.⁵⁶

Kimball's mill was further described in a Deseret News article of March 11, 1857:

Splendid flouring mill erected near the city of Bountiful. The mill is two stories high besides the attic story and an observatory, and has two run of stones, a smut machine, elevators, a beautifully finished bolting chest, and numerous bins for storing grain & all admirably arranged and finished. The machinery works to a charm, and is driven by a large overshot wheel requiring but little work. The building is highly creditable to President Kimball, to the skill of Bishop Kesler, the millright, and to the skillfulness of the different mechanics engaged upon the work. It is also the most striking feature in the improvements of Davis County. . . . and judging from the great care and attention on the part of the miller, Brother Martin Wood, and from the superior flour produced from some samples of rather indifferent wheat, we could not discern wherein there was much, if any room for material improvement.

The mill and the pond to which Kimball refers no longer remain. While in operation, the mill pond was used for local recreations and baptismal purposes. During the winter months, the ice was removed from the pond in blocks and stored in sawdust inside the mill. This ice was later sold to Salt Lake City and Bountiful residents during the summer. In 1861, when Kesler and his crew constructed a new mill for Kimball, the old edifice became an entertainment center and confectionary store. Then, near the beginning of the century, it was demolished. In 1937, the Kimball Camp of the Daughters of the Utah Pioneers erected a small replica near the original site on 4th East and 8th South on Orchard Drive.⁵⁷

The rapid growth in the numbers of small mills to serve the needs of the local communities was typical of another community in Davis County in which Frederick Kesler was involved, namely North Cottonwood Creek, later Farmington.

The history of this settlement is not unlike that of Bountiful. By the fall of 1848, the same incessant migratory push that had spread into Sessionville accounted for a general settlement a few miles north in the vicinity of North Cottonwood Creek--so named because of two large cottonwood trees which stood as the "only trees of any appreciable size in all the valley north of the Great Salt Lake City."⁵⁸ By 1849, the population had increased to an estimated twenty-five families. By 1851, there were 280 persons (about 65 families) living in the Farmington area.⁵⁹ As with Bountiful, this community was also a result of an unplanned, but not wholly unsupervised, overflow from the main body of pioneers.

With Bountiful, a sense of community was soon established with the awarding of county status. As Farmington was selected as the county seat, this transformation likely occurred soon after the designation.

To maintain a community, a source by which the subsistence of life must be introduced very early on. The establishment of agriculture was naturally a primary incentive and also a chief economic interest of this community. Agriculture, in time, supplied the raw materials and provided the basis for other economic ventures within the community and would lead very naturally into the desired economic subsistence and community cooperative independence. And so, the

pattern of industrial establishment was reproduced again with those edifices that transformed lumber and grains into usable resources.

The mill developments within Farmington occurred a little more slowly, possibly due to the inaccessibility of the canyons. In the winter of 1850-51, Willard Richards commenced the very difficult task of constructing a road up to the timber in North Cottonwood Canyon. After expending around \$10,000 a four mile road was passable up the canyon.⁶⁰ In January, 1851, the ordinance providing this road was approved:

CHAPTER XII

An Ordinance Pertaining to North Cottonwood Canyon

Be it ordained by the General Assembly of the State of Deseret, that Willard Richards have the exclusive right of working a road or roads into, or through North Cottonwood Canyon and having control of the same.

Approved Jan. 18th, 1851.⁶¹

Shortly after the completion of the road, Richards constructed a saw mill a few miles up the canyon adjacent to a large amount of timber. At last, the settlement was furnished with building supplies.

As Richards had already established a grist mill further down near the mouth of the canyon, the wording of the legislative act seems to imply his control over more than just the road construction, that of the resources of the canyons. And as the control over the timber resources were more or less given to those who opened the area for access by the County Court, this belief is further substantiated.⁶² As to the other early mills within this community, a great deal of speculation remains.

According to Glen Leonard, in his thesis concerning the history of Farmington, Lyman Hinman was directed, under the mission system, to leave Mt. Pleasant to reside in Farmington to supervise construction of mills.⁶³ The Farmington Camp of the Daughters of Utah Pioneers ascribed a saw mill, 1851; frame grist mill, 1852; rock mill, 1862; and a carding mill, 1855, to Hinman and other associates.⁶⁴

Kesler was introduced to this community in 1856 when he was commissioned by Samuel Richards to construct a carding mill. Then in 1860, he returned to examine Willard Richards' old grist mill. Upon Willard's death, Franklin Richards became heir to this edifice and other holdings.⁶⁵ As Kesler was commissioned by Richards to build a new flour mill utilizing the power source from North Cottonwood, it is probable that he also inherited the rights to this stream.

This remarkable rock edifice, completed in 1862, still remains in Farmington as the Heidelberg Restaurant. It has, understandably, undergone several renovations and remodelings necessary for it to become an eating establishment.

These early flour mills, so numerous in the 1850's and 1860's, generally became consolidated as transportation facilities extended and developed. The timber industry, because of the depletion of the timber resources, died a very natural death within the first two decades after settlement. By 1900, the mill operations of these two communities had ceased operation.⁶⁶

Weber County

Weber County was visited, in the interest of Latter-day Saints Church, by Captain James Brown in January of 1848.⁶⁷ There he found

Miles M. Goodyear and others occupying a ranch and trading post near the Weber River. Goodyear, who had come to the area in the employ of the Hudson's Bay Company and by virtue of a Mexican land grant in 1835, claimed ownership to large portions of the Weber Valley which included the present site of Ogden.⁶⁸ To remove this possible obstacle to the settlement of that large and productive area, the High Council appointed Captain Brown to use \$1950 of the \$5,000 he had brought to Utah in Mormon Battalion pay to purchase this claim.⁶⁹

In the spring of 1848, after the extinction of the Goodyear claim, James Brown and his sons planted five acres of wheat and also some ". . . corn, potatoes, cabbage, turnips and a few watermelons."⁷⁰ From this foundation, Brownsville, later Ogden, was soon established in 1849.⁷¹

Weber County was created by enactment of the State of Deseret, Jan. 31, 1850, on the same date as Salt Lake, Utah, Sanpete, Tooele, and Davis Counties. Shortly thereafter, Brigham Young, desirous for the rapid growth and efficient government in this colony, sent Lorin Farr to take charge of the affairs in Weber County.

Lorin Farr, though not the pioneer of the Weber Colony, may very properly be considered the founder of Ogden City, of which he was the first mayor; and, for twenty-years thereafter, he served the city in the capacity of mayor, and under his fostering care and judicious administration, the city grew up."⁷²

In the fall of 1850, Brigham Young further strengthened this settlement by directing an additional one hundred families who had arrived in Utah with that year's emigration from the east. The population of this county, according to the census of 1850, consisted

of 1186 inhabitants.⁷³ The nucleus was now formed for what was to become an early commercial and railroad city in Utah.

In the summer and fall of 1850, Mayor Farr built the first grist and saw mill in the county located northeast of Ogden City on the Ogden River.⁷⁴ Previous to this the farmers of Weber were forced to take their wheat to "President Young's and Neff's mills south of Salt Lake City, a distance of forty-five to fifty miles to be ground."⁷⁵ Such a task was obviously very time consuming and costly and Farr's mills relieved this burden. During the same summer, Daniel Birch built a sawmill on the Weber River where afterwards John Taylor built a grist and flour mill.⁷⁶

Another incident of 1850 centered around Indian difficulties. One evening a settler shot White Cloud, a noted chief, while helping himself to ears of corn. The retaliation was swift and represented quite a heavy price to pay for a few ears of corn.⁷⁷ As a result, a wall was constructed around Brownsville, as with most far away settlements, soon thereafter, called Ogden.

By an enactment of Feb. 6, 1851 of the legislature of the State of Deseret, Ogden received its city charter. Within that same year, Utah was granted territorial status, and Ogden was surveyed, laid off under the direction of Governor Young, Henry G. Sheerwood, surveyor, and Mayor Farr. In 1852, the portions of the county adjacent to Ogden City were surveyed to regulate further settlement. This section, from five to six miles north, west and south was then divided into three sections: Bingham Fort, Slaterville, and North Ogden.⁷⁸

Weber County, in 1856, was divided into four wards, and bishops and counselors appointed to preside over each. At this time Chauncey W. West was appointed the bishop of the Third Ward. He was destined to become another prominent business and community leader of Weber County and another benefactor of Kesler's talents. In accordance with his bishopric appointment, Chauncey West took charge of the temporal welfare of his ward as well as most of the community. Besides being very active in territorial and local politics, his energies were directed into the opening of several industries within Ogden. These included canals, a tannary, a wagon and blacksmith shop, a meat market, roads and sawmills. "There were scarcely any public enterprises of any importance with which he [Chauncey West] was not prominently connected."⁷⁹

After receiving a charter for Wheeler's Canyon in 1856, he constructed a road and a saw mill at the junction of this canyon and Ogden Canyon. The timber resources were soon depleted in this canyon and he, in 1860, placed a saw mill in ". . . a fine grove situated in what is now known as the Basin, just back of Observatory Peak."⁸⁰ This was a mill designed by Kesler for West's foremen to construct. He continued at this location until, once again, the resources were exhausted.

In 1861, largely due to a request by Brigham Young, Kesler started the construction of a flour mill for Lorin Farr in Ogden. Completed in 1862, the plant was located at about 1950 Washington Boulevard.⁸¹ This adobe structure had the capacity of one hundred barrels of flour per day and utilized the Ogden River for its power source.⁸²

The flour mill on Washington Boulevard was destroyed twice by fire and finally rebuilt of brick and rock. In operation until 1897, this edifice supplied many of the Montana mining camps with flour.

A last great enterprise of Bishop West's and Mayor Farr's lives was building and superintending the construction of a division of the Central Pacific Railroad. The company chartered to undertake this task was "Benson, Farr & West."⁸³

The commercial importance of Ogden was primarily due to its geographical location at the mouth of the Weber River. Proximity to this water source was indispensable to urban life and growth in an arid country. The future importance of this city, however, was the existence of a passage through Weber Canyon down which might descend that powerful urbanizing and industrial agency, the railroad. Herein lay the strategic importance of Ogden, for until the railroad whistle reverberated in Weber Canyon, Ogden was a settlement nestled at the foot of the Wasatch.

Cache County

On August 16, 1858, Frederick Kesler was asked to examine Ezra Taft Benson's grist mill on Twin Springs, of which he had the exclusive control, and determine necessary repair operations. In the midst of the repairs of this mill in Tooele, the Benson's were directed to Cache Valley by Governor Young as Ezra was to preside over the Cache Valley State of Zion.⁸⁴

For a decade or more in the early nineteenth century this region was the center for an interesting and picturesque aggregation of

daring and venturesome individuals drawn together by the accidents of fortune and common liking for the wild, rugged characteristics of the transmontane region. Because of its numerous streams and its isolation such mountain men as Jim Bridger and Peter Skene Ogden found Cache Valley a veritable paradise for exploitation.

Before colonization by the Mormons, this valley was also visited by travelers and federal explorers. Once such was Captain Stansbury, of the Corps of Topographical Engineers of the United States Army. He, particularly provided invaluable data during the transition era, just as the colonization began.

In his narrative, Stansbury expressed an appreciation for the Cache Valley, not only for colonization purposes but also because of its favorable location on, among other things, the transcontinental line.⁸⁵ Had his dreams and plans come true Cache Valley, rather than Ogden, would have been on rather than off the main highway of travel.

Shortly after the Mormons arrived in the Great Basin, Brigham Young instigated a systematic program of exploration. Parties were sent out with instructions to keep a written record of their discoveries, and to look out for the essential resources for settlement: farming land, water sources, timber mill sites, grazing lands, minerals, etc. Explorations into Cache and other contiguous valleys near Salt Lake were commenced immediately. By the end of 1847, a great portion of the Great Basin had been explored. "All of this research, in the minds of the Mormons, had confirmed the wisdom of the original intention to locate in Salt Lake Valley. Cache Valley was too cold; Utah Valley was inhabited by Indians. Other valleys were too dry."⁸⁶

With the destruction of the grass supplies by the grasshoppers and the drought of 1855, the Mormons were in dire need of pasturage for their cattle. The place to which the church and most of the large cattle owners decided to send their herds was Cache Valley and southern Idaho. Out of necessity, the fear of the cold temperatures was forgotten. The legislature soon granted Cache Valley as a herding ground for Brigham Young, as trustee-in-trust for the Church. "Next, a drive was instituted, a company of twenty-five persons was organized, cabins and corrals were built, and a church ranch was established."⁸⁷

Unfortunately, the winter of 1856 was especially severe and the bitter cold destroyed the greater part of the Mormon herds.⁸⁸ This church farm, however, was the first attempt by the Mormons to settle within this valley.

In July, 1856, Peter Maughan and others entered the valley to establish a settlement near to where Wellsville now stands. Here, as with Davis, Weber and Box Elder counties, the colonization preceded along individual lines, the opposite of the southward development where everything was directed.⁸⁹ The development of a food source was necessary, and during the summer of 1857 and 1858, the members of this community had raised twenty bushels of wheat per acre.⁹⁰

The settlement of Logan occurred in 1859. By July, a site for the fort was chosen and lots for land were drawn. Then, in November, Orson Hyde and Ezra Taft Benson were sent to Logan to ". . . organize the settlement."⁹¹ A ward was established during the winter. The combination school and meeting house was constructed and the following spring Jesse Fox surveyed and the city was laid out in typical

fashion. This small settlement, now being carefully directed by Apostle Benson, consisted of seventeen families,⁹² and the pattern of industrialization would be replicated.

Existing within this county at this time were several mills. In the summer of 1859 and winter of 1860, James Ellis and Benjamin Williams built and operated a saw pit. They had an upright whip saw which was operated by hand. In his master's thesis, Willard Densen infers that because this was such a laborious and tedious task, Benson, Hezekiah Thatcher and others made the necessary steps to install a better saw mill which included a grist mill, utilizing Little Logan River. With an increase of business because of population growth and the construction of the Logan Temple and Tabernacle, "the old saw mill was done away with and the grist mill was expanded in 1865 under the name of Thatcher and Sons Union Mills."⁹³ Edward Tullidge states that this mill ". . . was the first flour mill built in Cache Valley, and has been in operation since 1860. At that time it was run in conjunction with a saw mill, and the same power that it uses now was then utilized to operate both the flour and saw mill."⁹⁴

On May 14, 1860, Frederick Kesler recorded, ". . . the Prst. [Brigham Young] rather exprest a Desire that I should asist Br. E. T. Benson in Building a Flour mill in cach Valley."⁹⁵ Not only did Benson acquire a flour mill, but also a saw mill. In the meeting of the County Court, September 3, 1860, the authorizations to the various water and timber resources were delegated. On this date ". . . Ezra T. Benson and Peter Maughan were granted the control of all the waters, timber, wood, poles, minerals and grass in Logan Canyon,

subject to the control of the Court."⁹⁶ As Apostle Benson was the legislative representative, besides being the ecclesiastical leader of the county and Maughum the presiding bishop, the eligibility for grant was most likely never a source of tension. The mills, most likely utilizing this power source, were completed by 1861. Whether or not Benson's mills became the Union Roller Mills is unknown.

In 1888, the Union Mills were remodeled again and modern roller machinery replaced the old mill stones. A large elevator with a forty thousand bushel capacity was also added. "This elevator was the largest in the territory and enabled the farmers to dispose of their grain when they desired to sell rather than storing the wheat through the winter months."⁹⁷

As milling interests further increased, more and more plants were required. Cache Valley, in the 1860's, was entering into her industrial stage. In the future years, this community would host a Mormon temple, a railroad and, among many such advantages, a university and stability was ensured.

Summit County

On May 18, 1860, Kesler and his eldest son, Joseph, traveled to Fillmore to locate and build a flour mill for Samuel P. Hoyt. In the midst of construction, Brigham Young directed Mr. Hoyt to Unionville, a small settlement within Summit County on the Weber River. Shortly thereafter, this community became known as Hoytsville.

Hoytsville, located between Coalville and Wanship, was first settled by the Thomas Bradberry family in the autumn of 1859. It

was not long before additional settlers were sent to aid Mr. Bradberry in establishing this community. As Hoytsville was located on the emigrant trail to Utah and California, a route later utilized by the overland stage, most likely the community was reinforced as an emigrant way-station.

Stock raising was the leading business of the people on the Weber, and often was the principal means of subsistence.⁹⁹ The range was excellent in the summer, and in the winter the dry grasses, where exposed, were abundant.

Due to the untimely frosts and the late spring, the raising of grain was a precarious endeavor. However, Tullidge states that, "As the soil is not only well adapted for the growth of hay, but as well for the production of immense quantities of potatoes, beets, carrots, etc., for the feeding of cattle, the day cannot be far distant when dairy farming will bring affluence and wealth to an industrious and enterprising people."¹⁰⁰

For several years the settlers on the Weber were forced to travel to Salt Lake City to exchange, what most often was, their inferior wheat for flour. In the winter, particularly, this thirty-six or so mile journey was very perilous if attempted at all. Late in autumn, after the season's harvest was threshed, ". . . it was often necessary to take a load to mill that there might be bread in the house through the long severe winter."¹⁰¹ When this supply diminished, ". . . the people were obliged to substitute boiled wheat for bread."¹⁰²

The first grist mill in the county which relieved the anxiety was built for Samuel P. Hoyt. The mill site at Hoytsville, was located by Kesler on June 21, 1861. After being advised to resettle in this county, Hoyt had packed his two sets of French burr stones and "several thousand bushels" of wheat and moved.¹⁰³ From the Summit County Court, Hoyt received a grant to a portion of the Weber River and the right to build the mill. This mill operated until 1867. Mary Lee and Edna Tremmelling further explained:

Because of not having enough fall in the water system to give the proper power and not being able to secure the needed water right for the same, the grist mill was closed down. After the machinery had been idle for years Mr. Hank Stevens bought and moved the machinery to Oakley where the mill has operated for many years.¹⁰⁴

In 1859, coal was discovered within Summit County. With the subsequent development of the mines, Coalville emerged. Then, in 1869, silver in Parley's Park, later Park City, further enriched the development of this region. For with the influx of miners, not all of which were welcomed, markets for the produce, timber, livestock and employment burgeoned.

Salt Lake County

Salt Lake City has always been the center of Utah's population and of its government and thus, the history of this city is almost inseparable from that of Utah. Here, as in the other settlements discussed, the processes of settlement required for viability were established and the institutions and values were adapted and implanted within a new environment. Salt Lake City, however, was the initial

focus of settlement within the Great Basin and from it diffused the colonization of almost every habitable part of the region.

The economic situation of Salt Lake City has varied during its history. During the first two years, it was dogged by hunger, inadequate housing and a precarious economy. This marginal existence was dramatically altered by the estimated rush of ten to fifteen thousand gold miners in 1849 and 1850 en route to California. Prices of scarce commodities desired by the prospectors inflated tremendously. Not only was this situation caused by the lack of commodities but by the urging of Brigham Young to increase the price when sold to prospectors. Moreover, the Mormons were able to buy materials unwanted by the miners, for practically nothing. The forty-niners provided employment for Salt Lake City's tradesmen and strengthened the communities merchandising economy. The gold rush made Salt Lake City a prosperous community and so provided the required impetus to fulfill the desires of a self-sufficient kingdom. These desires, to establish an autonomous oasis within the United States were impractical and with the end of isolation with the transcontinental railroad, the integration into the natural economy became inevitable.

When Frederick Kesler arrived in Salt Lake City in 1851, there were four grain and five saw mills in operation or near completion in Salt Lake County. Obviously, his mill expertise was exercised in supplementing, replacing or repairing extant grain and lumber industries. Indeed, Salt Lake County, by the early 1850's, was witnessing the diversification and specialization of labor required of industrial communities that provide a continuing source of innovations.

Brigham Young's Lower Mill

Shortly after his arrival, Frederick Kesler commenced supervising the construction and maintenance of Brigham Young's Lower Mill in what is now Liberty Park. The site, lot no. 3, block 19, Big Field Five Acre Plat, was previously occupied by a sawmill owned by Isaac Chase and had begun operations on December 24, 1847.¹⁰⁵ Brigham Young, sensing the need for another flour mill within the city limits, acquired the property and by 1852, operations commenced. The mill was used for the production of bran, shorts, flour, and corn meal.¹⁰⁶

This adobe brick structure, now known as the Chase Mill, was one of the first flouring mills erected in the valley, and the second within the Salt Lake City limits--the first being Brigham Young's grist mill on City Creek.¹⁰⁷ Frederick Kesler, besides supervising the construction, was also credited as being the architect.¹⁰⁸

The mill including much of the land which surrounded it, was purchased in 1878 from Brigham Young's heirs for a proposed park ". . . the mill at this time was intact but not in use."¹⁰⁹ Then on June 17, 1882, this land was dedicated as Liberty Park and opened to the public.¹¹⁰

The history of this structure has been a turbulent one, vacillating between renovation and demolition since the late 1890's. One of Bishop Kesler's last public efforts was to preserve this historical edifice from the City Council's proposed demolition in 1898. In a response printed in the Deseret News he stated:

I built the old flouring mill that stands in Liberty Park for President Brigham Young in 1852 . . . I would say beauty the surroundings and make it attractive, and thousands

of people will take pleasure in viewing one of the old landmarks of the early days in Utah. I am sure that the majority of sober thinking people will voice my sentiment which is: Spare the old mill.¹¹¹

With a combined effort, the mill was saved and a renovation project was commenced. At this time, the initials "B. Y." and the year "1852" were placed under the northeast gable.¹¹²

In 1935 and again in 1957, the Daughter's of the Utah Pioneers sponsored other renovation activities so that the structure could continue to be an historical monument. With the extensive reconstruction, which was necessary if the building was to remain standing, more information was lost. However, there is currently another project underway sponsored by the Utah State Historical Society which is utilizing the archeological and historical expertise of its staff along with consulting the architectural talents of a local, reputable firm.¹¹³ The location of the machinery inside the mill is still unknown. However, the archeological team has determined that the mill wheel, pit, and the tail race were positioned on the north end of the building and the type of wheel used was either an undershot or a small overshot.¹¹⁴

Brigham Young's and J. B. Little's Mill

Brigham Young also had an upper mill that he held in trust with J. B. Little. Whether Frederick actually designed the structure in which the machinery was housed is not known. He and his crew, however, put into successful operation most of the necessary machinery. Whether because it was desired or the old was insufficient, Pharus Wells placed a small run of burr stones in this mill in September, 1857.¹¹⁵ The

mill, located on Big Canyon Creek near the mouth of Parley's Creek Canyon, also came to house a separator and smut machine by February, 1858.¹¹⁶ The building and the new machinery were abandoned during the move South with the encroachment of Johnston's Army later that year. Upon the return to the valley, Frederick examined Brigham Young's mills and found them "filthy Dirty."¹¹⁷ On April 30, 1860, Brigham Young requested that Frederick superintend the repairing of this mill which involved some iron work and a "new watter wheel."¹¹⁸ His wording of this passage seems to infer that the wheel was of a new type. In his diary on November 17, 1859, Frederick mentioned that he visited Brigham Young's office and together they examined a "Terbine Water Wheel."¹¹⁹ It is very likely that this new wheel was incorporated into this mill.

With a wheel of this type, the water rotated the wheel by impulse upon entering and reaction on leaving. Later these wheels were used in conjunction with gold mining and, with the other developments, the wheel "revolved too fast for the use in flour milling, but marked an important advance in hydrolics."¹²⁰

Empire Mill

In September, 1862, President Young desired the machinery moved from Young's and Little's Mill into a new one--Young's Empire Flouring Mill, located on City Creek. The previous mill then became a woolen factory.¹²¹

The Empire Mill, begun July 1, 1861, by Kesler, was put into operation on July 30, 1864. Frederick stated, "Started the Empire

Prst Young with severial oathers were presant. all seemd Highly pleased with the moovement of the mill and all of its Diferant parts I made Severial Hundred pounds of Flour The mill performing unto my intire satisfaction."¹²²

On October 28, 1879, Frederick had the occasion to visit this mill. On that date he provided a more complete description. The location was one mile up City Creek, was driven by a "powerful watter wheel 40 feet in Diameter made of Iron which Drives two run of 4 foot French Burr Stones . . . and Has been in constant use ever since it was built scarcely a tremor can be felt . . . turns out about 100 sacks per day the flour is of the best quality." Kesler was never paid for this contract.¹²³

After the death of Brigham Young in 1877, the ownership of the mill and adjacent property reverted to the L. D. S. Church, as Young had managed it as trustee-in trust.¹²⁴ Six years later, on May 21, ". . . the Empire burned down . . . the loss will reach about \$30,000."¹²⁵

Utah has never produced sufficient timber for her own needs. William Chandless noted in the mid-1850's that firewood was the ". . . severest item in a household expenditure . . . that a family with two stoves burning will run near to 300 dollars in the course of a winter."¹²⁶ Although little data is available, it is clear that Utah's timber harvest was never enough to satisfy all the needs of the local citizenry.

Frederick Kesler was an integral part in supplying the demand for timber resources by aiding in the construction of several saw

mills throughout Salt Lake County. The structures which housed the saws were not permanent edifices for, as timber is migratory because of depletion, so were the mills. The types of saws that he utilized were, evidently, the sash saw and the circular saw, and water was again the power source.

Big Cottonwood Canyon Lumber Company

The natural resources of the valley and the surrounding canyons were viewed as the collective property of all the Saints. Indeed, they were to be enjoyed only in "usufruct," the legal right of using another's profits. Brigham Young outlined this policy when he stated, ". . . there shall be no private ownership of the streams that come out of the canyons, nor the timber that grows on the hills. These belong to the people: all the people."¹²⁷ The management, however, of these resources was assigned to important church leaders as a public trust; to defray the costs of roads, maintenance, and improvements, they could, and often did, charge access fees. The county courts were empowered to make such assignments after 1850 to guarantee that these resources were equitably managed for the public interest.¹²⁸

Thus emerged the Big Cottonwood Canyon Lumber Company. In the year 1852, Joseph A. Young and others were granted a charter to construct a mill in Big Cottonwood Canyon. The company, organized by Joseph A. Young, built a mill a short distance up the canyon. In 1854, Brigham Young, Frederick Kesler, and others purchased the claims and improvements of the chartered company. By the Fall of that year, this company began to make roads and build mills. By 1856, there were

three saw mills in operation which had ". . . already cut over eight hundred thousand feet of timber."¹²⁹ The author of the Deseret News article which contained this statement, was so enthused by the progress that he saw, that he could not help but remark on the appropriateness of a motto on a flag floating over the third mill, "Industry Rewarded."¹³⁰

Richard Burton, traveling throughout Salt Lake City, described Big Cottonwood Canyon in 1860.

Great Cottonwood Kanyon . . . The road, which winds from side to side, was worked by thirty-two men, directed by Mr. Little, in one season, at a total expense of \$16,000. After exhausting Red Buttes, Emigration and other Kanyons, for timber and fuel, Great Cottonwood was explored in 1854, and in 1856 the ascent was made practicable. In places where the gorge narrows to a gut there were great difficulties, but rocks were removed, whilst tree trunks and boughs were spread like a corduroy, and covered with earth brought from a distance: Mormon energy overcame every obstacle. It is repaired every summer before the anniversary festival; it suffers during the autumn, and is preserved from destruction by the winter snows. In many places there are wooden bridges, one of which pays toll, and at the end of the season they become not a little rickety. As may be imagined, the water-power has been utilised. Lines and courses carefully leveled, and in parts deeply excavated, lest the precious fluid should spread out in basins, are brought from afar, and provided with water-gates and coffer-dams. The mills are named, after the letters, C, B, A, D. And lastly E. Already 700,000 square feet of lumber have been cut during this summer, and a total of a million is expected before the mills are snowed up; you come upon these ugly useful erections suddenly, round a sharp turn in the bed, they have a queer effect with their whirring saws, amid crash to timber, forming a treble of the muscial bass of the water-gods.

We halted at the several mills, when Mr. Little overlooked his accounts, and distributed stores of coffee, sugar and tobacco. After the first five miles we passed flecks of snow . . . after passing mill D, we debouched upon the basin also called the Big Prarie, a dwarf turfy savannah, about 100 yards in diameter, rock and tree-girt,

and separated from Parley's Canyon on the north by a tall, narrow wall. We then ascended a slope . . .

After mid afternoon we dismounted, and left our nags and traps at Mill E, the highest point, where we were to pass the night.

The log-hut was of usual make . . . the furniture--two bunks, with buffalo robes, tables, and chairs, which were bits of plank mounted on four legs--was the rudest.¹³⁰

By March 5, 1861, Brigham Young was suggesting that the company members divide the canyon and each member "having a certain share."¹³¹ This was done on March 1, 1862. Frederick proposed selling his interest on that day which was worth \$2,607.06. Rather than completely disposing of his interest, he and Brigham Young purchased Mill F from Br. Gardner for \$13,000.00.¹³² The mill was then renamed the Excelsior Mill. The Excelsior mill also came to house the machinery necessary for the grinding of wheat into flour. The production of this flour was begun in 1863 as witnessed by this add in the Deseret News.

MILLING

Having added a French Burr Stone to the EXCELSIOR MILL on Big Cottonwood, which is now in good running order, we are prepared to accomodate those wishing good work on short notice.

N.B. Those from a distance accommodated by terrying overnight.

B. Young, Sen.,
F. Kesler Proprietors
James C. Walker, Miller¹³³

On November 5, 1867, partially because of his accident Kesler sold his half of the mill to Brigham Young for \$8,000.00.¹³⁴

Other saw mills

Other saw mills with which Kesler was involved in the county included a saw mill, possibly two, for Brigham Young in City Creek Canyon.

One City Creek saw mill was located at the forks of City Creek Canyon.¹³⁵ On September 11, 1856, there was a group gathered to witness the starting of this mill. ". . . Bishop Frederick Kesler had everything in readiness for starting the saw mill he had been superintending the erection of for the Governor. The dam, floom, car and track for delivering logs to the saw, had been completed in a very short time, considering the number of hands employed, besides putting new lining and buckets into the overshot water wheel."¹³⁶ The flooring and siding for the mill were to be put in place when enough wood had been cut.

In August, 1858, Frederick and Brigham Young ventured up City Creek to select a new site for a saw mill, but it is not known whether the plant was ever constructed.¹³⁷

End Notes

¹Leonard J. Arrington and Davis Bitton, The Mormon Experience: A History of the Latter-day Saints (New York: Alfred A. Knopf, 1979), p. 111.

²Richard F. Burton, The City of the Saints and Across the Rocky Mountains, ed. with Intro. and Notes by Fawn M. Brodie (New York: Alfred A. Knopf, 1963), p. 319. Not only were potatoes planted but corn, oats, buckwheat, beans, turnips, and garden seed. Leonard J. Arrington, Great Basin Kingdom: An Economic History of the Latter-day Saints 1830-1900 (Lincoln: University of Nebraska Press, 1966), p. 45.

³Andrew Jensen, comp., "The Journal History of the Church of Jesus Christ of Latter-day Saints," Library of the Church of Jesus Christ of Latter-day Saints, Salt Lake City, Utah, 13 October 1847. (Hereafter referred to as "Journal History.")

⁴"Journal History," 28 November 1847.

⁵Ibid., 28 November, 1-2 December 1847. In September 1848, Crismon's toll was legally raised from one sixteenth to one tenth of the grain processed. "Journal History," 30 September 1848.

⁶Ibid., 6 March, 15 May 1847.

⁷B. H. Roberts, A Comprehensive History of the Church of Jesus Christ of Latter-day Saints: Century 1, vol. 3. (Salt Lake City, 1930), p. 269 in Arrington, Great Basin Kingdom, pp. 53-54.

⁸Arrington, Great Basin Kingdom, p. 51.

⁹Ibid., p. 50.

¹⁰"Journal History," 24 September 1848.

¹¹William Mulder and A. Russell Mortensen, eds., Among the Mormons: Historic Accounts by Contemporary Observers (New York: Alfred A. Knopf, 1958), p. 234.

¹²Andrew L. Neff, History of Utah 1847-1869 (Salt Lake City: Deseret News Press, 1940), p. 281.

¹³Ibid., p. 216.

¹⁴Gideon Sjoborg, "The Origin and Evolution of Cities," in Alexander B. Callow, ed., American Urban History: An Interpretive Reader with Commentaries 2d ed. (New York: Oxford University Press, 1973), pp. 6-16.

¹⁵ Arrington, Great Basin Kingdom, p. 53.

¹⁶ Utah Territory, Acts, Memorials and Resolutions. Passed at the several sessions of the Legislative Assembly 1850-1871, 9 December 1850. (Hereafter referred to as Acts, Memorials and Resolutions.)

¹⁷ Ibid.

¹⁸ Neff, History of Utah, p. 255.

¹⁹ Ibid., p. 255.

²⁰ Acts, Memorials and Resolutions, 4 February 1852.

²¹ With the repeal of this act, water resources were no longer publicly owned but privately. George Thomas, The Development of Institutions under Irrigation with Special Reference to Early Utah Conditions (New York: Macmillan, 1920), pp. 57-58.

²² Thomas, Institutions under Irrigation, p. 53.

²³ Ibid.

²⁴ Ibid., p. 59.

²⁵ As this thesis is not concerned with other than water and water power sources, further examination of this legislation is not covered. For further information see George Thomas' work.

²⁶ Dean L. May, "Economic Beginnings," in Utah's History, Richard D. Poll et al., eds. (Provo: Brigham Young University Press, 1978), p. 193.

²⁷ Edward Tullidge, The History of All the Northern, Eastern, and Western Counties of Utah: Also the Counties of Southern Idaho, vol. 2: Tullidge's Histories (Salt Lake City: Juvenile Instructor Press, 1889), p. 291.

²⁸ Neff, History of Utah, p. 902.

²⁹ Ibid.

³⁰ Charles M. Chestnutwood, "A Historical Approach to the Urban Geography of Brigham City, Utah" (Master's thesis, University of Utah, 1950), p. 45.

³¹ Tullidge, Northern Utah and Southern Idaho, p. 291.

³² "Journal History," 8 October 1853, Conference Statistical Report of 6 October 1853.

- ³³"Journal History," 6 October 1855.
- ³⁴Ibid.
- ³⁵Chestnutwood, "Urban Geography of Brigham City," p. 59.
- ³⁶Ibid., p. 127.
- ³⁷Ibid., p. 125.
- ³⁸Ibid.
- ³⁹Ibid.
- ⁴⁰Ibid., p. 126.
- ⁴¹Helen B. Haacke, "The Heber C. Kimball Mill," comp., for Kimball Camp of Daughters of the Utah Pioneers, Bountiful, Utah.
- ⁴²William R. Purrington, "The History of South Davis County From 1847-1870" (Master's thesis, University of Utah, 1959), p. 7.
- ⁴³Ibid.
- ⁴⁴Ibid., p. 15.
- ⁴⁵Acts, Memorials and Resolutions, 9 January 1851.
- ⁴⁶Thomas, Institutions under Irrigation, p. 58.
- ⁴⁷Ibid., p. 47.
- ⁴⁸Purrington, "History of South Davis County," p. 68.
- ⁴⁹Ibid.
- ⁵⁰Ibid.
- ⁵¹Ibid., p. 71.
- ⁵²Davis County (Utah), Minutes of the Davis County Court, 30 October, 4 June 1852.
- ⁵³Haacke, "Heber C. Kimball Mill."
- ⁵⁴"Notice for the Public Good," Salt Lake City Deseret News, 27 April 1854.
- ⁵⁵"Journal History," 7 November 1855.
- ⁵⁶Edward Tullidge, The History of Salt Lake City (Salt Lake City, 1886), p. 114.

⁵⁷"Restore Old Mill Monument," Davis County Clipper, 6 February 1976, Helen B. Haacke, "The Heber C. Kimball Mill," comp., Bountiful, Utah.

⁵⁸Purrington, "History of South Davis County," p. 17.

⁵⁹*Ibid.*, p. 27.

⁶⁰According to an entry in "Journal History," 15 December 1858, Brigham Young furnished \$2,300 from tithing funds to aid in the road development.

⁶¹Acts, Memorials and Resolutions, 18 January 1851.

⁶²Purrington, "History of South Davis County," p. 69.

⁶³Glen M. Leonard, "A History of Farmington, Utah to 1890" (Master's thesis, University of Utah, 1966), p. 30.

⁶⁴Margaret Steed Hess, My Farmington: A History of Farmington, Utah 1847-1976 (Salt Lake City: Daughters of the Utah Pioneers, 1976), p. 340. The ambiguity involved, deals with the conflicting dates and individuals mills have been attributed to. From the author's research, what has been listed seems to be correct.

⁶⁵Clara Richards, Franklin D. Richards' grand-daughter, Farmington, Utah, July 1979.

⁶⁶Purrington, "History of South Davis County," p. 72.

⁶⁷Neff, History of Utah, p. 892.

⁶⁸Thomas F. O'Dea, The Mormons (Chicago: University of Chicago Press, 1957), p. 88.

⁶⁹Arrington, Great Basin Kingdom, p. 47. Neff and Tullidge claim that Captain Brown payed Goodyear \$3,000 of the \$5,000 the Mormon Battalion had received for its participation in the war with Mexico.

⁷⁰Tullidge, Northern Utah and Southern Idaho, p. 10.

⁷¹Neff, History of Utah, p. 892.

⁷²Tullidge, Northern Utah and Southern Idaho, p. 14.

⁷³Neff, History of Utah, p. 894.

⁷⁴Tullidge, Northern Utah and Southern Idaho, p. 163.

⁷⁵*Ibid.*, p. 162.

- 76 Ibid., p. 163.
- 77 Neff, History of Utah, p. 893.
- 78 Tullidge, Northern Utah and Southern Idaho, p. 211.
- 79 Ibid., p. 64.
- 80 Ibid.
- 81 Milton R. Hunter, ed., Beneath Ben Lomond's Peak: A History of Weber County 1824-1900 2d ed. (Salt Lake City: Deseret News, 1945) pp. 290-291.
- 82 Tullidge, Northern Utah and Southern Idaho, p. 163.
- 83 Tullidge, Northern Utah and Southern Idaho, p. 66. (Located in supplementary biography section.)
- 84 Willard Conrad Jensen, "History of Logan" (Master's thesis, University of Utah, 1927) p. 7.
- 85 Neff, History of Utah, p. 904.
- 86 Arrington, Great Basin Kingdom, pp. 42-43.
- 87 Ibid., p. 151.
- 88 Ibid.
- 89 Neff, History of Utah, p. 905.
- 90 Jensen, "History of Logan," p. 5.
- 91 Ibid., p. 7.
- 92 Ibid.
- 93 Ibid., p. 30.
- 94 Tullidge, Northern Utah and Southern Idaho, p. 463.
- 95 Kesler Diary no. 3, Manuscript Collection 49, The Papers of Frederick Kesler, 1837-1899, Special Collections Department, University of Utah Libraries, Salt Lake City, Utah, 14 May 1860.
- 96 Tullidge, Northern Utah and Southern Idaho, p. 391.
- 97 Jensen, "History of Logan," p. 32.

⁹⁸ Marie Peterson and Mary Pearson, Echoes of Yesterday: Summit County Centennial History (Salt Lake City: Daughters of the Utah Pioneers, 1947), pp. 149-186.

⁹⁹ Tullidge, Northern Utah and Southern Idaho, p. 125.

¹⁰⁰ Ibid.

¹⁰¹ Ibid., p. 128.

¹⁰² Peterson and Pearson, Echoes of Yesterday, p. 157.

¹⁰³ Ibid., p. 153.

¹⁰⁴ Ibid.

¹⁰⁵ Archeological Investigation of the Chase Mill, Historic Site Survey, Utah State Historical Society, 1978, p. 2.

¹⁰⁶ Bran: The broken coat of the seed of cereal grain, separated from flour or meal by sifting or bolting. Shorts: A by-product of wheat milling which includes the germ fine bran, and some flour.

¹⁰⁷ "The Liberty Park Mill," Salt Lake City Deseret News, 1 July 1899.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ "Journal History," 18 June 1882.

¹¹¹ Salt Lake City Deseret News, 1 July 1899.

¹¹² Ibid.

¹¹³ Wallace N. Cooper, II, Architects and Association.

¹¹⁴ Archeological Investigation, p. 8. See appendix for explanation of milling process.

¹¹⁵ Kesler Diary no. 1, 21 September 1857.

¹¹⁶ Ibid., 1 February 1858.

¹¹⁷ Kesler Diary no. 2, 21 July 1858.

¹¹⁸ Kesler Diary no. 3, 29 August 1860.

¹¹⁹ Ibid., 17 November 1859.

¹²⁰John Storck and Walter Dornin Teague, Flour For Man's Bread (Minneapolis: University of Minnesota Press, 1952), p. 42.

¹²¹Kesler Diary no. 3, 18 September 1862.

¹²²Ibid., 30 July 1864.

¹²³Kesler Diary no. 5, 28 October 1879.

¹²⁴Leonard J. Arrington, "The Settlement of the Brigham Young Estate, 1877-1879," The Pacific Historical Review 21 (February 1952): 1-20.

¹²⁵Kesler Diary no. 6, 21 May 1882.

¹²⁶Dean L. May, "Towards a Dependent Commonwealth," in Utah's History, Richard Poll et al., eds. (Provo: Brigham Young University Press, 1978), p. 228.

¹²⁷Ibid., p. 203.

¹²⁸Ibid.

¹²⁹Salt Lake City Deseret News, 24 July 1856.

¹³⁰Burton, City of the Saints, pp. 386-388.

¹³¹Kesler Diary no. 3, 5 March 1861.

¹³²Ibid. 1 March 1862.

¹³³Salt Lake City Deseret News, 25 November 1863.

¹³⁴Kesler Diary no. 3, 5 November 1867.

¹³⁵Salt Lake City Deseret News, 11 September 1856.

¹³⁶Ibid. Flume: An inclined channel for conveying water from a distance for power.

¹³⁷Kesler Diary no. 2, August 1858.

INDUSTRIAL PLANTS

With the establishment in the local communities of such light industries as gristmills, sawmills, etc., Brigham Young, in 1849, assumed a more active role in governing the economic development of the infant empire. Most American-born Mormons were agriculturalists possessing few industrial skills. Foreign converts, on the other hand, tended to be craftsmen and mechanics, reflecting the skills of a higher industrial stage. Quick to recognize the importance of this expertise to his dreams of developing a self-sufficient community, Young instructed church agents and missionaries to seek out skilled workers in Europe.¹ These persons were to be encouraged to convert and emigrate immediately to the kingdom, ". . . in preference to anyone else."² The major industrial enterprises attempted in Utah during the first decade drew upon this European expertise.

During the early period, it would have been in vain to urge the people into home manufacture. Very wisely, because of the distance to the centers of national industries and commerce, Utah was organized primarily on an agricultural side, very reminiscent of any emerging society. With stabilization on that front, Utah could merge into a manufacturing period. As Burton explained:

In the young settlements of the Far West there is a regular self-enforced programme of manufacturing progress. The first step is to establish flouring or grist mills, and lumber and saw mills, to provide food and shelter. After these sine quo nons come the comforts of cotton-spinning,

wool-carding, cloth-weaving, tailoring, and shoe-making. Lastly arise the luxuries of life, which penetrated slowly into this territory on account of the delay and expense of transporting heavy machinery across the 'wild desert plains.'³

In reviewing the industrial history of the Utah territory and Kesler's involvement in many of her enterprises, a singular feature of vital importance to development was the public works department under Daniel H. Wells, the Superintendent. Through this division, public, religious and industrial buildings, bridges, roads, irrigation canals, mills and other such projects were constructed and financed by the members of the Latter-day Saints' Church.

The first such industries with which this department was involved included a machine shop (1852-1864), a foundry (1854-1864), and a nail factory (1859-1865). These factories, originally established on Temple Square, were powered by a large water wheel which utilized City Creek, channeled down the north side of North Temple Street, as a power source. In his autobiography, Kesler states very clearly that he was responsible for the water wheel.⁴ This was his first industrial involvement. From this beginning he would become included with such major enterprises in the territory as sugar, textiles, iron, paper and buttons. Indeed, Kesler would play an integral part in the evolution of this pioneering community into an industrial commonwealth through means of his mechanical and architectural expertise.

Sugar

No natural supply of sweets was ready at hand when the pioneers arrived in 1847. Fortunately or unfortunately the appetite for sweets

could not be forgotten or ignored. The cost of importing, however, was becoming prohibitive with freight charges in addition to the cost of this eastern commodity. The history of the successive and determined efforts to solve this economic problem provides an illuminating chapter in the story of the struggle to overcome the natural handicaps of the Great Basin. Success was postponed for nearly half a century.

The small supplies of sugar which were imported with the emigrant trains were soon consumed after reaching the Territory, and conforming with the drive for self-sufficiency, sugar substitutes were developed and produced. One very intriguing substitute was derived from watermelons. Under the title of "Sugar", in 1852, the following formula appeared in the Deseret News:

Mash the inside the thirty ripe melons without the seeds; let the pulp stand one day and strain; let the juice stand one day and boil, clarifying it with four beaten eggs, shells and all. When it begins to boil the second time, add one quart of water; and when it begins to boil the third time, add one quart of water; then skim as it boils, adding a little cold water occasionally, which causes the scum to rise freely. When the scum has risen, remove the syrup from the fire and let stand one day; then grain it over a steady fire as one would maple syrup. Should the weather be very warm, so as to produce fermentation, the pulp juice or syrup must not stand long. The above was presented by a friend who received it from Mr. Slight, a candy maker.⁵

Just to what extent watermelons were utilized in this manner is unknown. The continued drive for sugar did not end here, however, thus suggesting that the success of this sweetener was not overwhelming.

While engaged in missionary work for the Mormon Church in France, John Taylor became intensely interested in beet sugar culture. At a

World's Fair in France, he saw one exhibition with a variety of machinery for deriving sugar from the sugar beet.⁶ In response to his enthusiasm and the need for sweets in the Utah Territory, the Deseret Manufacturing Society was incorporated to instigate sugar production, and also woolen manufacture.⁷ Shortly thereafter, the company purchased the necessary machinery from Fawcett Preston & Company in Liverpool,⁸ and men acquainted with the refining process were sought out by European missionaries and all, including seeds, were forwarded to the territory.⁹ By March of 1853, the process of refining the sugar beets had begun resulting in a palatable molasses.¹⁰ In spite of all the precautions, the secret of a certain chemical process by which the sugar beet pulp was metamorphosed to a granular form was unknown.

The machinery was then moved from the Temple to Provo where it lay idle. Early in 1854, it was hauled back to Salt Lake City and installed in an adobe building purposefully constructed by the Public Works Dept. for sugar refining.¹¹ Attention was called to these works by Governor Young in his message to the legislature of December, 1854:

The Canyon Creek sugar works, designed for the extensive manufacture of sugar from the sugar beet are nearly ready for operation.¹²

The farmers, from 1852 with the arrival of the seeds, were diligently raising sugar beets in anticipation of a future success, a measure of their faith and obedience. In 1855, when this factory was completed, about 300 acres of beets had been planted, which would have produced, roughly, three thousand tons of beets to refine.¹³

This attempt was a failure. "Over a seven week period, more than 22,000 bushels of beets were ground into molasses."¹⁴ The next two years the crop lacked luster because of drought and grasshopper devastation, and after 1856, the factory in sugar house seems not to have operated.¹⁵ Whatever the reasons for failure, the enterprise had demonstrated that beets could be produced in Utah, and that near-success could be obtained.

The drive for sugar did not end here, however. In 1856, Thomas Bullock reported to Brigham Young that ". . . the people at Cottonwood and the Big Field were making superior molasses out of milk weed and stink weed."¹⁶

Brigham Young was not discouraged and continued his campaign by advocating the culture of sorghum cane. He implemented his desire by distributing free seed to farmers. This cane, grown throughout the territory, furnished a creditable molasses. "Scores of horse and water powered mollasses roller mills were established by private individuals and by communities throughout the territory to crush the cane and squeeze off the juice."¹⁷

Frederick Kesler was involved with at least two of these factories, one for Heber C. Kimball and the other for Brigham Young.

Heber C. Kimball's sugar mill was water powered by a pitch-back wheel. Frederick had begun a design for this mill on July 19, 1861. By September 18, the mill, in Davis County, was in operation.¹⁸ It is not known whether Frederick or his crew actually built the structure in which the machinery was housed. There are some references verifying

that Kesler gave directions to Kimball in relation to the water power and machinery.¹⁹

Brigham Young's sugar works were begun April 2, 1860. Frederick drafted four different plans for the plant, boiler, and refinery. Brigham Young approved of one "with a slight variation."²⁰ By September 15, the mill was still not completed as there is a notation urging Frederick to "forward the molassas factory as fast as possible as the time is near at hand to commence working up the cane."²¹

For years the molasses of sorghum cane remained the staple sweetener of Mormon cuisine. The attempt to launch the sugar beet industry was a frustrating episode in the economic development of the territory. Only after 1890 did the sugar beet become a significant source for local sugar factories.²²

Textiles

The Mormons desired that the Great Basin would provide the three basic exigencies of life: food, shelter and clothing. The soil demonstrated its willingness to yield under irrigation, if only the pests might be kept away and building materials were available, even though the timber resources were limited. The gratification of clothing desires, although simple enough in theory, represented a pursuit involving heroic efforts and measures.

Textile attention and production during the early development decades centered primarily around woolens, cotton and flax fabrics. While one was provided by sheep, the others ". . . were the products of a gentle climate and congenial soil."²³

The future for the woolen factories was easily visualized because of the easy acclimation of sheep to the western landscape. Prior to the factory system, however, the textile industry was in the home. The first public carding machine was owned and operated by Amasa Russell at Mill Creek in 1848.²⁴ By 1852, Mathew Gaunt had begun the construction of a woolen mill.²⁵

In 1851 and 1852, the General Assembly passed two resolutions which stressed the territorial manufacture of woolen and cotton yarn that included a pledge from the Assembly members that they would use ". . . only Domestic manufactured clothing as soon as a sufficient quantity of it can be furnished to supply the market."²⁶ The creation of the Deseret Manufacturing Society in Liverpool supported these resolutions. John Taylor, besides cultivating a sugar process, was actively organizing, in 1851, a large company of woolen manufacturers to be sent to Utah in 1852.²⁷

Considerable progress in the woolen industry was made in the fifties decade because of improved mill facilities. A. R. Gardner, in a solicitation to utilize wool carding plant in Salt Lake City, explained in the Deseret News in 1851 that he had a ". . . double machine and picker run by water power. Customers were advised to provide one pound of grease for every eight pounds of wool."²⁸

Meanwhile, Provo City had become the beneficiary of the most complete woolen mill in the territory. Shadrick Holdaway, after purchasing the machinery in St. Louis in 1850, opened and owned this facility.²⁹ The factory was in operation by July of 1852.

Textile production in factory and home had produced plain jeans and linseys. Mr. Gaunt in Salt Lake City, however, furthered the variety by offering satinets:

Mr. Gaunt informs us that he commenced weaving satinets at his factory on Western Jordan on the 19th . . . eight quarters wide and that his loom will weave twelve quarters and that very soon he will full and finish some cloth but that he cannot shear or color much for he has no shears and but little coloring . . .³⁰

By December, Gaunt was advertising a line of jeans, cloth, flannels, satinets, and blankets.³¹

Of all the processes of wool manufacturing, carding was the most laborious, and it was this stage that first became commercialized. Brigham Young entered into this field in 1856. At that time his carding machinery was installed at the Sugar Works on Big Canyon, later Parley's Creek.³² Yet he did not prove a threat to his competitors for on July 29, 1857 this notice appeared in the Deseret News:

Bring in your wool that it may be carded, otherwise the machines will be stopped for want of business.

Whatever the disadvantages were to this factory, Brigham Young remained enthusiastic about this enterprise. He, however, moved his outlet further east on the same water source, in the structure formerly utilized as "Youngs & Littles Flour Mill." Included in Frederick's diaries are numerous citations relating to his purchase of the machinery for Brigham Young while on his 1858 mission. In his autobiography he states, "I was again cald in companey with Br. Eldrege in the fall of 1858 on anoather Buisness Mission to the Eastern States to perchase a Large amount of Macheneary of various Kinds to wit for Flouring and Saw mills a Papermill Nail Machines Carding machines for

Boath wool and cotton also Spinning machines for Boath wool and cotton also power Looms for each."³³ On January 3, 1859, while in Pittsburg, he ordered the carding machines.³⁴

The factory established on Parley's Creek was referred to as "Brigham Young's Woolen and Cotton Factory." The factory, with 240 spindles, was assembled and put into motion in 1863, as witnessed by these advertisements in the Deseret News.

WOOLEN FACTORY

We have started our CARDING and SPINNING MACHINERY, in a building formerly Young & Little's mill on Big Canyon Creek, three-fourths of a mile east of the Penitentiary.

If those who wish wool carded and spun on shares will bring it well washed, picked and grossed, we will return two parts and keep one of the yarn it makes.

B. YOUNG & CO.

COTTON FACTORY

We will CARD and SPIN, in the above named building, good, clean cotton for one-half the yarn it makes; or we will pay in merchandise forty cents a pound for merchantable cotton delivered at our factory.

B. YOUNG & H. S. ELDREDGE³⁵

This factory proved to be too large for the local sheep industry to supply it adequately with wool. The mill was dismantled and sent to Southern Utah where steps were being taken to produce cotton in sufficient quantity to make effective use of the machinery.³⁶

Experimentation is the natural order in the process of existence within a new and unfamiliar environment. Only by trial and error may the potential of a new or even established country be ascertained and the capabilities realized. In Utah there existed the additional cooperation of effort and interest that assisted this experimental process. Illustrative, again, of this was the determined effort

designated as the cotton mission in Utah's Dixie. Year after year one calamity after another struck the enterprise. "Alkali soil, alternative flood and drought, grasshopper and cricket infestation, Indian troubles and backbreaking toil under a broiling sun--these and other conditions caused the less hardy to pull up stakes and try their luck elsewhere. Those who remained frequently had cause to doubt the wisdom of their call."³⁷ By the end of the century, the amount of land in cotton was almost negligible and this phase of diversification and self-sufficiency ended.

Nail Factory

As industry increased so did the demand for iron. The prosperity of the territory depended upon an adequate supply. As Brigham Young said, "Iron we need and iron we must have. We cannot well do without it, and have it we must if we have to send to England to get it."³⁸ Nails represented a portion of this needed supply. Due to the length and difficulty of the haul by ox team from St. Louis to the Great Basin, nails were an expensive but requisite commodity. Church officials continually experimented with construction materials and devices which would economize in the use of nails. "Some buildings, for instance the Mormon Tabernacle, were tied together with rawhide thongs and required few or no nails."³⁹ The widespread use of stone and adobe, besides relieving the pressure on the timber resources, cut down the use of nails. With the discovery by the Parley P. Pratt Company of an "inexhaustible" supply of iron in what became Iron County, Brigham Young foresaw an end to his worries with the development of another industry.

In 1851, with a view to later establishing Iron Works in the close proximity of the ore deposits, Parowan was founded as the agricultural supply center for the eventual influx of miners and manufacturers. Shortly after, the workmen, essentially of English, Scotch and Welsh heritage, were sent to establish a community on Coal Creek.⁴¹

In spite of the great amount of energy expended by settlers of the region in attempting to produce iron, the progress was extremely slow. Among the numerous problems was the lack of sufficient funds and expertise to develop the new industry. A letter termed the "Sixth General Epistle of the First Presidency" was sent to the president of the European Mission. Besides describing the conditions within Utah, the letter contained a recommendation for the organization of a company for the manufacture of iron within the territory which would sell stock to the wealthy members of the Mormon Church.⁴²

By 1852, the Desert Iron Company was incorporated in Liverpool. "Through the consolidation of the old and the new regimes, the adding of resources and the providing of a superior business organization, a reinvigoration of the iron industry had been attained which designated 1853 as the significant year in the history of industry when the near-successes would translate themselves into actualities of iron and steel."⁴³

These successes were short-lived, for in 1857 a large number of families began moving from the settlement in Iron County. "The Iron Works had become a failure and were almost at a complete standstill."⁴⁴ Due to an empty treasury, Indian raids, floods and, then, the arrival of Johnston's army with ample supplies of iron, the industry ceased

operation. It had, however, developed sufficiently to manufacture handirons, plowshares, nails, flatirons, and cog wheels for machinery.⁴⁵

When federal troops occupied the Territory during the years 1857-1861, iron supplies became abundant, encouraging Brigham Young, as trustee-in trust of the church, to send Frederick Kesler, and others on an economic mission to the East to order the necessary machinery for nails and other manufacturing articles. Elder Kesler purchased the nail-making machines in Wareham, Massachusetts which could ". . . make from four to twelve penny nails complete at one stroke."⁴⁶ In Pittsburg he purchased ". . . two chilled rolls . . . for rolling the different sizes of nails."⁴⁷ The machinery arrived in Salt Lake City with the first Church Train of the season.

Daniel H. Wells and the Public Works Department were put in charge of the factory on Parley's Creek which was ". . . frame & measured 25 by 50 ft." Kesler, on the other hand, was responsible for the installation, design and maintenance of the machinery.⁴⁸ According to his duties, Kesler designed the furnace which was a ". . . Double Reheating Furnace for heating iron" prior to its being rolled and sheared.⁴⁹ On August 23 and 24, 1860, Kesler, Brigham Young and Daniel H. Wells visited the factory ". . . which was turning out first rate quality nails of plates Roled from Heavy Waggon tires . . . Cutting Nails of 8 Diferent Sizes."⁵⁰ By April of 1861, Public Works employees were turning out nails by the ton.⁵¹ Apparently the first water wheel was ineffectual, for on October 17, 1860, Kesler drafted plans for a new overshot wheel. On December 6, 1861, new shears were needed and Kesler sketched new ones. By 1865, the

supply of iron left by the United States Army was exhausted, and the Nail Factory closed its doors.⁵²

Following this event, was the arrival of the Union Pacific Railroad, which reduced the cost of imported iron and iron articles to much less than the expenditures necessary to produce the same within the territory. This enterprise, as with the sugar industry, lay practically dormant until future years when it was again revived by new industrial leaders in a more profitable environment.

The only salvageable item from the early sugar beet industry was the equipment which was then used for such varied purposes as the manufacture of linseed oil, paper, iron, and wool. The three-story adobe factory, 103 ft. by 40 ft., had two additional machine shops which housed, in turn, wool carding machines, a machine shop, and a paper factory.⁵³

Paper Mill

The development of a local paper industry was necessary because the costs of importing from St. Louis were prohibitive to the printing process. The Latter-day Saints church, desirous of having certain publications including the continuation of the Deseret News, therefore profited by the timely conversion in 1850 of a skilled paper maker from England, William Howard. Seizing the opportunity for obtaining the needed expertise, church officials expedited his emigration to the Great Basin. He reached Salt Lake City in 1851 and Brigham Young appointed him to supervise the construction of a paper mill as part of the Public Works program. In October, 1851, a draft of the

machinery was prepared and the construction of the mill commenced. The plant, constructed of makeshift material was unsatisfactory, however, and the paper produced was a dull, gray color and coarse in texture.⁵⁴

To improve the quality of the product, Howard prevailed upon Brigham Young to import a paper machine which arrived in the valley in 1853. Howard also obtained permission to use some of the machinery that had been imported for the manufacture of beet sugar. This operated for four years but the Utah War in 1857, encouraged the dismantling of the equipment which was sent to Cedar City for use in the iron works.⁵⁵

On Kesler's economic mission to the East in 1858, one of his responsibilities was to purchase a new paper mill. On January 18, and February 1, 1859, in Pittsburg and Philadelphia, Frederick visited paper mills. He was particularly fond of Mr. J. W. Killis and Son's factory in Philadelphia. As the machinery was purchased in Philadelphia, it is possible that it was acquired from this company.⁵⁶ Two paper engines and a 36 inch Granite cylinder machine, valued at from \$20,000 to \$25,000.00, were carried by Church Train to the valley in 1860.⁵⁷ December 23, 1860, Frederick and Brigham Young examined the old sugar works to evaluate the possibility of housing the machinery there. They decided that, with a few alterations, the building would house a paper factory. Taggart handled the alterations and by July 25, 1861, the factory was in operation manufacturing brown paper.⁵⁸

The mill remained in operation under the direction of the Public Works Department until 1868, when the management was transferred to the Deseret News Company. In 1883, the factory was transferred to the Granite Paper Mill in Big Cottonwood Canyon. The previous structure, used as a spare, was destroyed by fire in 1893.⁵⁹

Button Factory

Another project while on his mission, was to purchase button making machinery for Utah. On January 24, 1859, Frederick visited a button manufacturer and ordered a machine which could produce ". . . both pearl and bone buttons."⁶⁰ This establishment was owned by Emil Wahl, No. 837 North 3rd Street, Philadelphia.⁶¹ On December 2, 1859, Frederick and Brigham Young unboxed the machinery in Salt Lake City and found it to be in good condition.⁶²

According to Asa Bowthorpe, this factory was located on Parley's Creek. The machinery was capable of manufacturing four different sizes of buttons from horn or bone and could drill the buttons at the same time. Horn buttons, however, must be "Puncht in stead of being drilled."⁶³

The saw for cutting the bone or horn was also powered by a water wheel. Kesler seems to have been actively involved with the entire project including the design and construction of the factory.

Miscellaneous Projects

Frederick Kesler's activities were, obviously, many and varied. The factories with which he was involved, although not always

successful, were experiments in group economics and provide an interesting and remarkable segment in the conquering of the frontier.

Other projects in which his skills were involved included trip hammers for iron works, oil mills, canals, a bridge, school house, smoke house, wind mill, bowery, and a powder mill.

The trip hammer was located at the mouth of Big Cottonwood Canyon. The project that would most likely require this device would be a blacksmith shop or a foundry. On December 29, 1857, Kesler and sixteen other men started work on the trip hammer. On February 10, 1858, Samuel Ensign was given instructions in relation to ". . . Horse power Iron work for Trip Hammer."⁶⁴ By August 11, 1858, the job was still underway, as Kesler ventured up the canyon to examine the progress.

An oil mill produces oil from flax seed. Flax seed oil is termed lindseed oil after the squeezing process is completed. Kesler familiarized himself with this process while on his Eastern mission. September 14, 1859, he and Heber C. Kimball selected a site for a mill. The building was near completion by December 3rd when Kesler stated in his diary, ". . . the roof is now going on rapidly."⁶⁵ By December 13th, it was fully enclosed. One year later, 1860, he and Kimball visited the site and successfully ground one and one-half bushels of flax seed. There was another trial on December 13th which produced one pint of linseed oil. Unfortunately, when the steam was "got up" again on December 14th, the wedge press, of which Kesler adamantly expressed no involvement, did not give satisfaction. Kesler then decided to develop a hydraulic press. He accomplished this and the press was installed in the oil mill on January 13, 1861.⁶⁶

Unfortunately, this press was not powerful enough to extract the oil from the seed. By May 3, 1861, he had solved the problem for the mill was in successful operation as witnessed by Kimball's notice in the Deseret News.

LINSEED OIL

President H. C. Kimball has now on hand, and for sale a good supply of LINSEED OIL. Parties wishing to procure any quantity of it can do so by applying to Mr. A. Hill, at the Tithing Office.⁶⁸

Some of the machinery utilized for this factory which also housed a flour mill, was previously engaged in the early sugar works.⁶⁹

Included in the Kesler materials are references to his involvement with two canals. The first, on March 30, 1860, dealt with City Creek. On that day, Kesler, B. Young, H. C. Kimball, and others gathered to ". . . Deside upon some plan Best calculate to save North temple street." Probably due to erosion and/or flooding, they decided to ". . . let the watter run in the center of said street and set out trees on Boath sides of Said channel which in a few years will give a very Butiful apearance."⁷⁰

The second canal was an intriguing proposal. On November 18, 1864, Kesler was notified of his selection as one of the ". . . Directors of the Contemplated canal from this city to Utah lake for the purpose of irrigation and Navigation." Prior to this, January 19, 1854, the territorial legislature had passed the act authorizing the construction of this canal.⁷¹ The commission to have charge of the work was named by the legislature. Besides naming the general course of the canal, the act specified that the canal was to be of

sufficient depth and width to boats drawing water two and one-half feet deep and twelve feet wide. Locks were provided for.

The proposed waterway, which was organized twice, must have fallen victim to practicality or disinterest for it was never completed.

On November 10, 1860, Kesler was consulted by Brigham Young concerning a new bridge under construction over the Jordan River. Kesler pointed out which sections or parts were the weakest of which Young ". . . Redily agreed."⁷²

In 1872, the Sixteenth Ward commissioned Bishop Kesler to superintend the construction of a new school house. This he commenced with vigor and enthusiasm since much of his activities of this sort had come to a halt with his accident in 1865. From late August 1872 until the completion in January of 1873, he worked with diligence on this edifice which was ". . . 34 by 70 ft walls 20 in thick and . . . 20 feet below floor & Sealing the walls . . . intirely of rock."⁷³

In 1891, because of non-Mormon insistence that church meetings should not be held in this school house, seventy-five year-old Kesler made plans to construct a new building--the Sixteenth Ward Chapel.

On February 25, 1891, he stated:

I took a Design for our 16th ward New House for meeting and oather purposes to Prt. W. Woodruff & oathers whare it was viewed by quite a number & it was the Jeneral Opinion that it would meet our presant & Future wants of the Saints for some time to come all spoke in favor of the Jeneral Design & all said it Best to Build it of Brick.⁷⁴

Two years later, the edifice was finished. It remained in use for thirty-nine years, being destroyed by fire in 1929.⁷⁵

Today the sound of the mill wheel is hushed. The mills, factories, and the workers served their day and generation, and a new order of things is upon us. The picturesque structures where placid lives were passed, the retired nooks--these memorials of a busy past may here and there occasionally attract the eye of a miller, student, or historical society of the present day; but beyond such silent recognitions of a once flourishing industry thus quietly but surely passing away, the change seems to progress to its close unnoticed.

End Notes

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² Ibid.

³ Richard F. Burton, The City of the Saints and Across the Rocky Mountains, ed. with intro. and Notes by Fawn M. Brodie (New York: Alfred A. Knopf, 1963), pp. 352-353.

⁴ Frederick Kesler Autobiography, Manuscript Collection 49, The Papers of Frederick Kesler, 1837-1899, Special Collections Department, University of Utah Libraries, Salt Lake City, Utah, p. 13.

⁵ John G. Crook, "The Development of Early Industry and Trade in Utah" (Master's thesis, University of Utah, 1926), p. 72.

⁶ "Report of John Taylor," Salt Lake City Deseret News, 4 September 1852.

⁷ Ibid.

⁸ Crook, "Development of Industry," p. 74.

⁹ Franklin D. Richards to Brigham Young, in "The Journal History of the Church of Jesus Christ of Latter-day Saints," comp. Andrew Jensen, Library of the Church of Jesus Christ of Latter-day Saints, Salt Lake City, Utah, 24 February 1852.

¹⁰ Salt Lake City Deseret News, 5 March 1853.

¹¹ Ibid., 26 October 1854.

¹² "Governor's Message," Salt Lake City Deseret News, 14 December 1854.

¹³ Leonard J. Arrington, Great Basin Kingdom: Economic History of the Latter-day Saints 1830-1900 (Lincoln: University of Nebraska Press, 1966), p. 119.

¹⁴ Ibid.

¹⁵ Ibid., pp. 116-120.

¹⁶ William L. Knecht and Peter L. Crawley, ed., The History of Brigham Young (California: MassCal Associated, 1964), p. 174.

¹⁷ Arrington, Great Basin Kingdom, p. 120.

- 18 Kesler Diary no. 3, 19 July 1861, Kesler Papers, University of Utah Libraries, Salt Lake City.
- 19 Ibid., 21 and 27 August 1861.
- 20 Ibid., 11 April 1860. The location of this sugar works is unknown.
- 21 Ibid., 15 September 1860.
- 22 Arrington and Bitton, The Mormon Experience, p. 123.
- 23 Andrew L. Neff, History of Utah 1847-1869 (Salt Lake City: Deseret News Press, 1940), p. 285.
- 24 Ibid., p. 286.
- 25 Ibid.
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- 27 Neff, History of Utah, p. 286.
- 28 Ibid., p. 287.
- 29 Ibid.
- 30 Salt Lake City Deseret News, 27 November 1852, cited in Neff, History of Utah, p. 288.
- 31 Neff, History of Utah, p. 287.
- 32 Salt Lake City Deseret News, 13 February 1856.
- 33 Kesler Autobiography, p. 13.
- 34 Kesler Memorandum Book, Kesler Papers, University of Utah Libraries, Salt Lake City.
- 35 Salt Lake City Deseret News, 16 September 1863.
- 36 Arrington, Great Basin Kingdom, p. 121.
- 37 Ibid., p. 221.
- 38 Journal of Discourses, 26 vols. (Liverpool, 1854-1886), 2:282, cited in Crook, "Development of Industry," p. 31.
- 39 Arrington, Great Basin Kingdom, p. 110.
- 40 Crook, "Development of Industry," p. 31.

- ⁴¹Ibid., p. 41.
- ⁴²Ibid., p. 38.
- ⁴³Neff, History of Utah, p. 308.
- ⁴⁴Crook, "Development of Industry," p. 68.
- ⁴⁵Ibid., p. 68.
- ⁴⁶"A Veteran of 1846: Leaves from the Journal of Bishop Kesler," Salt Lake City Deseret News, 29 May 1897.
- ⁴⁷Ibid.
- ⁴⁸Ibid.
- ⁴⁹Kesler Diary no. 3, 11 April 1860.
- ⁵⁰Ibid. 23 and 24 August 1860.
- ⁵¹"Millenial Star," 21 (1859):719-720 in "Journal History."
- ⁵²Arrington, Great Basin Kingdom, p. 111.
- ⁵³Ibid., p. 120.
- ⁵⁴Ibid., p. 114.
- ⁵⁵Ibid., p. 115.
- ⁵⁶Kesler Diary no. 2, 18 January and 1 February 1859.
- ⁵⁷Arrington, Great Basin Kingdom, p. 115.
- ⁵⁸Kesler Diary no. 3, 25 January 1861.
- ⁵⁹Arrington, Great Basin Kingdom, p. 115.
- ⁶⁰Kesler Diary no. 2, 24 January 1859.
- ⁶¹Ibid.
- ⁶²Kesler Diary no. 3, 2 December 1859.
- ⁶³Kesler Memorandum Book.
- ⁶⁴Kesler Diary no. 1, 10 February 1858. A trip hammer is a massive power hammer that is tripped, and allowed to fall by cam or lever action.

⁶⁵Kesler Diary no. 2, 3 December 1859. The location of this mill is unknown.

⁶⁶Kesler Diary no. 3, 13 January 1861.

⁶⁷Ibid. 3 May 1861.

⁶⁸Arrington, Great Basin Kingdom, p. 120.

⁶⁹Salt Lake City Deseret News, 21 September 1863.

⁷⁰Kesler Diary no. 3, 30 March 1860.

⁷¹George Thomas, The Development of Institutions under Irrigation with Special Reference to Early Utah Conditions (New York: Macmillan, 1920), pp. 49-53.

⁷²Kesler Diary no. 3, 10 November 1860.

⁷³Ibid.

⁷⁴Kesler Diary no. 9, 25 February 1891.

⁷⁵"History of the Sixteenth Ward," Latter-day Saints Church Historical Department, Salt Lake City, Utah.

CONCLUSION

Frederick Kesler was one man in a combined effort towards group solidarity and viability; one man amidst a coalition of frontier farmers, working men, businessmen and artisans that expressed an unity, a oneness of purpose in outlook and direction to their energies: building a kingdom of God on earth. He was a self-reliant craftsman--somewhat an industrialist, inventor, architect, engineer--a man who took advantage of the resources and opportunities which surrounded him through the application of his skill and strength.

Yet, coupled with this personal commitment to his skill, was an emotional commitment to his church. Frederick Kesler was a Mormon and adhered to the strong group identity and dependence. During his lifetime, he remained a true believer, seemingly never faltering in his responsibilities to his church, his ward, and his community. He was a man that, through the unleashing of his creative talents, became involved with almost every aspect--religious and secular--of this pioneer community.

With the combination of all these attributes, Frederick Kesler should rank as a very important man in the history of Utah. Yet, his name and achievements are all but forgotten. Most of the mills and factories in which he was involved are not credited to his expertise--and with the demolition so with the man. Thus, the inquiry into Frederick Kesler's economic importance to Utah results in a

question: Why, when a man's talents were so important to the establishment and maintenance of many communities, did the man become anonymous?

To give a definitive answer to this question is essentially impossible. It is possible, however, to infer a probable answer from the spectrum of events significant in Kesler's life.

When he arrived into the valley, his skills as a millwright were essential to this emerging society. Kesler, however, desired to construct and operate a mill of his own in Box Elder. Possibly because this option was usually bestowed upon select individuals who were proven capable of managing the resources included with a mill, Brigham Young suggested that Kesler should not proceed with his plans. Acknowledging the possibility that Kesler would be able to temporally prosper with his own plant, it was suggested that Kesler would spiritually prosper if he would superintend the mill building for Brigham Young and the Church.¹ Shortly thereafter, Kesler settled in Salt Lake City and, under the supervision of his church, bestowed his expertise upon men who would enjoy a monopoly on concessions--Brigham Young, Heber C. Kimball, Lorenzo Snow, Ezra T. Benson, Franklin D. Richards, Lorin Farr, Chauncey West, and others. These men, however, were judicious leaders and significant in the establishment and viability of their respective communities. Kesler, although involved with many economic and religious enterprises within the territory, never developed the position of a community leader.

In 1865, an accident brought to a close the industrial importance of Frederick Kesler to Utah history. In the years to follow,

intriguing incidents would occur, especially two divorces, an altercation over rights-of-way with the directors of the Utah Western Railroad, and a recall with interest of a loan made to Brigham Young in 1852.

Kesler's divorces, by themselves, don't seem to have been the factors hindering his prominence since 1,645 were obtained from Brigham Young during the period of his presidency, many by ". . . prominent pioneer leaders involved in the practice of plural marriage."² What is intriguing, however, about Kesler's divorces, were the property settlements. By the time Young had finished, and there is no evidence to negate Kesler's word, Kesler was propertyless. All of his holdings had been divided between his three spouses according to the number of children.

Then, Brigham Young's solution to the altercation between Kesler and the railroad company was making a successful trade. That trade would have involved the removal of Frederick to southern regions of the Utah territory where he could ". . . engage in sheep raising, wine making, or some easy and pleasant occupation."³ Kesler, however, was not interested, and shortly thereafter reminded Brigham Young of a \$1,000 debt that, with 10% interest per annum, had become a \$3,200 obligation.

All of these, including the additional factor that he never completely owned a mill, suggest personality characteristics which might not have been deemed suitable by church leaders for eminence within the territory. Kesler's exclusion from Tullidge's, History of Salt Lake City, written during his lifetime, further

substantiates this supposition. There is included, interestingly, a biography of Henry Grow, a man who for several years was employed by Kesler.⁴

As to his economic importance to the Utah territory, Frederick Kesler provided with his mills a source of energy and existence to several communities by establishing within them the means by which they could move into an industrial future. In Salt Lake City, particularly, his mechanical acumen contributed to the evolution of an industrial society. Indeed, Frederick Kesler was a part of the continuum of the human experience on this planet representative of the dynamism of the pioneer and of the mind that encompassed an assumption of destiny.

Kesler, in his own words, later opined:

Although not claiming to be a Pioneer of 1847, yet I have been engaged in pioneer work all the way through since I was nineteen years old, and have crossed those dreary plains four times with teams from Salt Lake to the Missouri River, on Church business. If my efforts have resulted in good for my fellowman, or helped establish this great commonwealth, then I am thankful for the ability that the Father of all bestowed upon me. I am still a laborer and well wisher for the cause of Zion.

F. Kesler⁵

End Notes

¹Frederick Kesler Autobiography, Manuscript Collection 49, The Papers of Frederick Kesler, 1837-1899, Special Collections Department, University of Utah Libraries, Salt Lake City, Utah, pp. 11-12.

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³Brigham Young to Frederick Kesler, 16 June 1875, Kesler Papers, University of Utah Libraries, Salt Lake City.

⁴Edward Tullidge, Biographical Supplement to History of Salt Lake City (Salt Lake City, 1886), pp. 127-129.

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APPENDIX A

FLOUR MILLS

From Kesler's material located at the Marriott Library, it becomes clear that he was an ingenious designer of pioneering industrial plants--many he built himself, others he superintended the construction of or designed for others to build. He was also active in the design and construction of churches, schools, bridges, canals, private homes and shoppes. The foreman he used throughout his extensive activities were Samuel Ensign, Pharious Wells, G. W. Taggart, and Henry Grow.

Unfortunately, no detailed records or diagrams of his activities have been located. However, in his collection there exists a book entitled The Young Mill-Wright and Miller's Guide by Oliver Evans published in 1848. This publication will aid in the description of typical flour and saw mills of this period. However, because of the paucity of records, speculation on many of his building activities is necessary.

The complex assembly of revolving wheels, shafts, gears and stones which became a mill evolved to have no interaction whatever with the human body, and the hands played no part in its operation except as they exerted remote and relatively feeble pushes and pulls to start, stop, and regulate the action.

The mill of the last century, that by which the production of flour rose from one of the smallest to one of the greatest and most

valuable industries of the world, was essentially a structure of few parts, whether driven by water or wind, and its processes were exceedingly simple. The wheat, cleaned by a smut machine, a machine consisting of two cylinders or screens and an air blast, passed through a pair of millstones running very low (i.e. close together) in order that the greatest amount of flour might be produced in one grinding. The meal was then bolted, or a process by which the various grades of the end product were separated by a mesh cloth, and the tailings, consisting of bran, middlings, and adherent flour, again sifted and reground.¹

The ingenious Oliver Evans (1756-1819), "whose inventive genius and practical ability were but feebly requited by pecuniary success," was the first to materially improve the milling process of the last century.² His contrivances, some of which retain the same form today, introduced into milling the feature that has done so much for its prosperity, an automatic handling of the grain or flour by the motive power of the mill. This reduced to the smallest possible limit the enormous demand formerly made on the bodily strength of the miller, by whose labor almost the whole of the material was daily carried up or down the building.

The chief inventions of Evans were the elevator, the conveyer, the drill, the descender, and the hopper-boy. "By means of these machines may be performed every necessary movement of the grain and meal from one part of the mill to another through all of the various operations, from the time the grain is emptied from the waggoner's bag, or from the measure on board ship, until it be completely

manufactured into flour, either superfine or other qualities, and separated ready for packing into barrels. All which is performed solely by the force of water entirely without the aid of manual labor, except to set the machines in motion."³

Figure 2 represents Evans' own schematic plan of his mill "improvements", as given in The Young Mill-wright. The inserts show types of conveyers described by Evans. Simplistically, grain is poured from a wagon into a bin, from which an elevator raises it by means of a string of small buckets on a pulley to a rolling screen for cleaning. The clean grain is delivered to the stones for grinding. The meal is then carried by a conveyer and elevator to the hopper-boy for drying and cooling. Under the hopper-boy are the bolters for separating the various grades of the end product. Evans enumerated the benefits of his machines in his book: "A better preparation of the meal for bolting, for packing and preserving, is obtained, and in much less time than usual: the work of cleaning the grain, elevating and moving various parts to again be treated, is effected in one operation; there is considerable saving in meal; there is economy of space; the work is performed more rapidly; the elevating done with less power, while preventing sudden variations of speed in the stones; and finally, there is a great saving in cost of attendance, one operative turning out twenty barrels of flour instead of ten as by the old method, and a forty barrel mill requiring in all only two men instead of four men and a boy. The machines are economical and durable, as their motion is generally slow."⁴

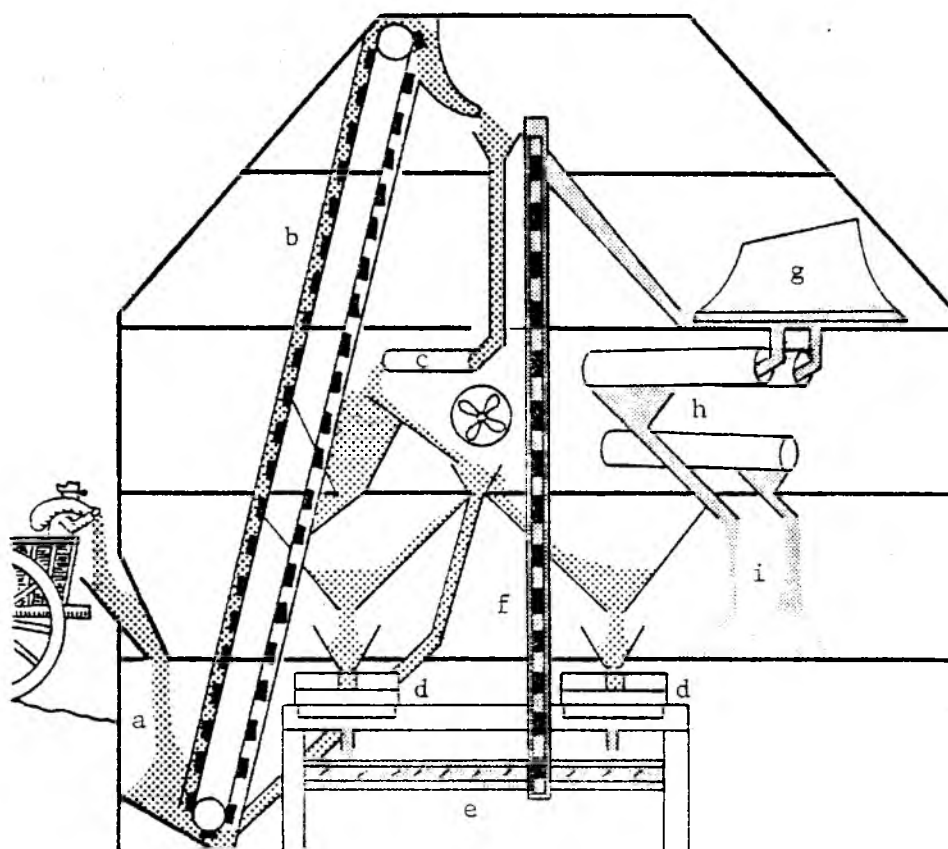


Fig. 2. Evans' own schematic plan of his mill "improvements", as given in The Young Mill-wright. Grain is poured from a wagon into a bin (a), from which an elevator (b) raises it above a rolling screen (c) for cleaning. The clean grain is delivered to the stones (d) for grinding, whence the meal is carried by conveyer (e) to the hopper-boy (g) for drying and cooling. Under the hopper-boy are the bolters (h) for separating the various grades of end product (i).

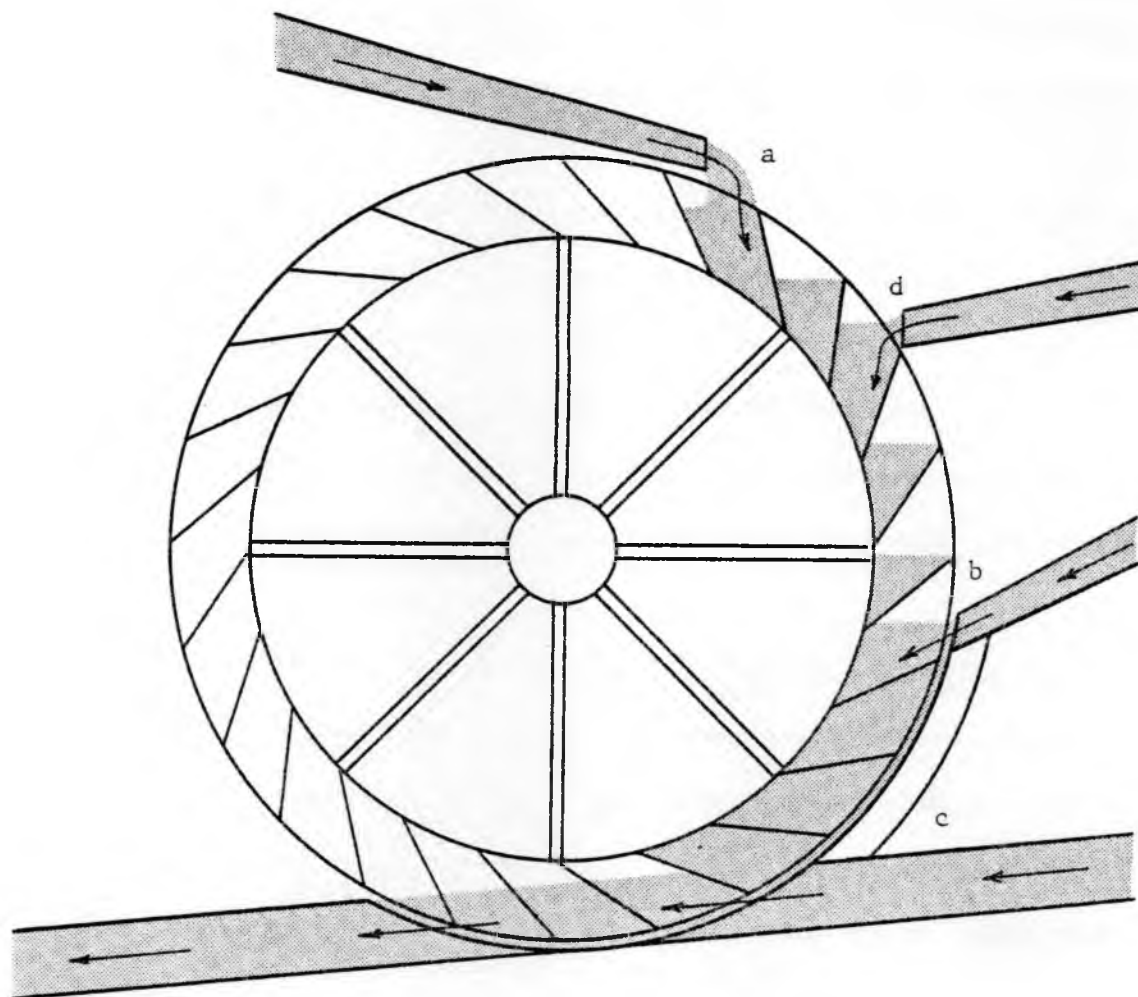


Fig. 3. Types of waterwheels: a, overshoot; b, breast; c, undershot; and d, pitch-back.

The power for this process was a water wheel, of which there are three basic types shown in Figure 3. Figure 3a is an overshot wheel, rotated entirely by gravity and the typical position for a wheel of this type was in the upper reaches of a stream below a dam. Figure 3b is a breast wheel rotated by a combination of gravity and impact of the water. The typical position of this example was in the middle reaches of a stream below a dam. Figure 3c is an undershot wheel rotated by impact. The typical position was in the lower, wider reaches of a stream with no dam required; if the stream is narrowed to receive the wheel, energy is lost, since the wheel will not rotate at the speed of the stream.

There is a fourth type of wheel which Frederick occasionally used (Fig. 3d). This was termed a pitch-back wheel which was constructed very similarly to a breast wheel. The difference was that the water struck the wheel at a higher position. Oliver Evans preferred an overshot wheel to this one because the expense was not as great with equal power.⁵

APPENDIX B

SAW MILLS

The lumber activities in Utah have been a history marked by repeated migrations. Depletion of timber stands and changing patterns of demand have necessitated opening new areas of production.

The history of the industry is marked by technological change as well as by migration. As capital, experience, and the fruits of ingenuity accumulated, milling techniques became increasingly sophisticated. Eventually nearly every phase of saw mill operation was mechanized. Most basic were changes to the head rig, the main saw in a mill. At first sawers worked in pairs, one above a log and one below in a pit, and cut planks by hand with a long saw with handles on each end. In time, water power replaced manpower as the saw's driving force, and the muley saw came into being. Up-and-down sawing continued with various modifications, such as a sash saw, until the advent of the much faster circular saw. This in turn survived with modifications for a considerable period but was eventually superseded by the band saw. This was a giant-toothed loop of flexible steel which was strung tightly between paired flywheels above and below the log carriage. Each type was superior to its predecessor but also required more investment capital to install.

APPENDIX C

TABLE OF ACTIVITIES

Owner	Location	Type	Date Begun	Dates of Operation	Powersource	Construction Materials	Wheel/Saw Type	Comments
Lorenzo Snow	Brigham City	Flour	1855 or 1856	1857-	Box Elder Creek			Removed to Provo and replaced in Box Elder in 1858
Lorenzo Snow & Samuel Smith	Box Elder Canyon	Saw		1857-1866	Box Elder Creek			
Heber C. Kimball	Bountiful North Mill-creek Canyon	Flour	1851	1854-1861	North Mill Creek	Adobe & Timber (48 by 30 feet)	Overshot Wheel	Became entertainment center confectionary store, demolished near beginning of century
Samuel Richards	Farmington	Carding	1856					
Franklin Richards	Farmington	Flour		1862-1900 (?)	North Cottonwood Creek	Stone & Timber		Now Heidelberg restaurant
Lorin Farr	Ogden	Flour	1861	1862-1897	Ogden River	Adobe & Timber		Destroyed twice by fire rebuilt brick & rock
Chauncey West	Ogden	Saw	1860?	1860	Logan River			28 July 1860 Kesler explained mill plans to West's foreman
Ezra T. Benson	Logan	Flour	1860					Could have become Union Roller Mills
Ezra T. Benson	Logan	Saw	1860					
Samuel P. Hoyt	Filmore	Flour	1860					In midst of construction, Hoyt sent to Hoytsville

TABLE OF ACTIVITIES--Continued

Owner	Location	Type	Date Begun	Dates of Operation	Powersource	Construction Materials	Wheel/Saw Type	Comments
Sammel P. Hoyt	Hoytsville	Flour	1861	1861-1867	Weber River			Closed down in 1867 because not enough water power
Brigham Young	Salt Lake City	Flour	1851	1852-1878 ?		Adobe & Timber	Undershot or Small Overshot	Now Liberty Park Chase Mill
Brigham Young & J. B. Little	Parley's Canyon	Flour		-1859	Parley's Creek		Possibly Turbine Later on	Became a wool-cotton factory
Brigham Young Empire Mill	City Creek Canyon	Flour	1861	1864-	City Creek	Timber	Overshot or Possibly Turbine	Burned down in 1883
Big Cottonwood Lumber Co. Mill A	Big Cottonwood Canyon	Saw	1855		Big Cottonwood Creek	Log		New saw 1857
Big Cottonwood Lumber Co. Mill B	Big Cottonwood Canyon	Saw	1855		Big Cottonwood Creek	Log		
Big Cottonwood Lumber Co. Mill C	Big Cottonwood Canyon	Saw	1857		Big Cottonwood Creek	Log		
Big Cottonwood Lumber Co. Mill D	Big Cottonwood Canyon	Saw	1857	1857-	Big Cottonwood Creek	Log	Overshot, Circle	Later owned by D. H. Wells, July 24 celebrations held here
Big Cottonwood Lumber Co. Mill E	Big Cottonwood Canyon	Saw	1857		Big Cottonwood Creek	Log		

TABLE OF ACTIVITIES--Continued

Owner	Location	Type	Date Begun	Dates of Operation	Powersource	Construction Materials	Wheel/Saw Type	Comments
Big Cottonwood Lumber Co. Mill F	Big Cottonwood Canyon	Saw	1857		Big Cottonwood Creek	Log		Became Excelsior Mill owned by Kesler & Brigh- am Young
Brigham Young	City Creek	Saw		1856-	City Creek		Overshot	Could have been the Chase saw mill in Big Field which was moved 7 miles up this canyon in 1856
Brigham Young	City Creek	Saw	1858					Not known if actually built
Brigham Young	Salt Lake City	Sugar	1860					
Heber C. Kimball	Bountiful	Sugar	1861	1861-	North Mill Creek		Pitch-back	
Brigham Young	Parley's Canyon	Wood & Cotton		1863-	Parley's Creek			240 spindles--eventually dismantled & machinery sent to southern Utah
Public Works Dept.	Salt Lake City	Nail Factory	1858- 1859	1860-1865	Parley's Creek	Timber	Overshot	Could make from 4-12 penny nails, closed down when iron supply left by U. S. Army exhausted
Public Works Dept.	Salt Lake City	Paper	1860	1861-1868	Parley's Creek			Machinery placed in old sugar works, Sugar House

TABLE OF ACTIVITIES---Continued

Owner	Location	Type	Date Begun	Dates of Operation	Powersource	Construction Materials	Wheel/Saw Type	Comments
Public Works		Button Factory	1859		Parley's Creek			Horn or bone buttons, Kesler purchased machinery while on eastern mission
Heber C. Kimball	Bountiful	Linseed Oil Mill	1859	1860-	North Canyon Creek	Adobe & Timber	Overshot	Hydraulic press utilized housed in flour mill
	Deer Creek	Saw	1857					Not known if ever completed
	La Bonte	Saw	1857					Never known if ever completed

There exists in Kesler's materials brief references to other mills within the territory. Because the notations are so scanty and brief and because other sources have not been located, these additional edifices have not been included.

End Notes

¹Richard Bennett, The History of Corn Milling, 2d vol. (New York: Burt Franklin, 1898), pp. 193-222.

²*Ibid.*, p. 194.

³Oliver Evans, The Young Mill-Wright and Millers Guide, 12th ed. (Philadelphia: Lea and Blanchard, 1848), p. 238.

⁴*Ibid.*, p. 245.

⁵*Ibid.*, p. 286.

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